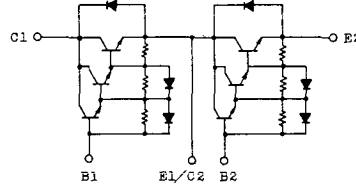


トランジスタ・モジュール (NPN, ダーリントン接続, 2個直列接続)

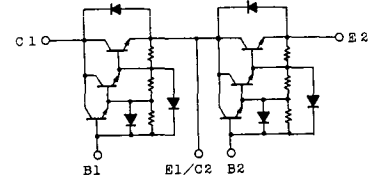
- ダーリントン・トランジスタを2個直列接続
- フリーホイール・ダイオード付
- 電極と金属ケース部が絶縁されている
- 直流電流増幅率は80以上(定格電流にて)

■等価回路

CK-1



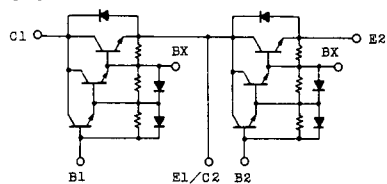
CK-2



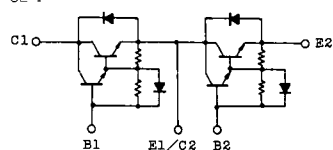
注1.  $T_c=25^{\circ}\text{C}$ . 注2. AC, 1分間。

型名	最大定格 ( $T_m=25^{\circ}\text{C}$ )											電気的特性									
	$V_{CBO}$	$V_{CEX(SUS)}$	$V_{EBO}$	$I_c$	$I_{CP}$	$I_B$	$I_F$	$I_{FM}$	$P_c$	$T_j$	$T_{stg}$	$V_{150}$	$I_{CBO}$		$I_{EBO}$		$V_{CEO(SUS)}$		$h_{FE}$		
	(V)	(V)	(V)	(A)	(ms)	(A)	(A)	(ms)	(W)	( $^{\circ}\text{C}$ )	( $^{\circ}\text{C}$ )	(V)	最大 (mA)	$V_{CE}$ (V)	最大 (mA)	$V_{ER}$ (V)	最大 (V)	$I_c$ (A)	最小 (V)	$V_{CE}$ (V)	$I_c$ (A)
MG15N2CK1	1100	1100	7	15	30	1.5	15	30	150	150	-40~125	2500	1.0	1100	200	7	900	1.0	100	5	15
MG15N2YK1	1100	1100	7	15	30	1.5	15	30	150	150	-40~125	2500	1.0	1100	200	7	900	1.0	100	5	15
MG25M2CK2	1000	1000	7	25	50	2.5	25	50	300	150	-40~125	2500	1.0	1000	200	7	880	1.0	100	5	25
MG25M2YK1	1000	1000	7	25	50	2.5	25	50	300	150	-40~125	2500	1.0	1000	200	7	880	1.0	100	5	25
MG25M2YK9	1000	1000	7	25	50	2.5	25	50	300	150	-40~125	2500	1.0	1000	200	7	880	1.0	100	5	25
MG25N2CK1	1100	1100	7	25	50	2.5	25	50	300	150	-40~125	2500	1.0	1100	200	7	900	0.5	100	5	25
MG25N2YK1	1100	1100	7	25	50	2.5	25	50	300	150	-40~125	2500	1.0	1100	200	7	900	0.5	100	5	25
MG30G2CL3	600	600	6	30	60	3.0	30	60	250	150	-40~125	2500	1.0	600	200	6	450	0.5	100	5	30
MG30G2YL1	600	600	6	30	60	3.0	30	60	200	150	-40~125	2500	1.0	600	200	6	450	0.5	100	5	30
MG40S2YK1	1400	1400	7	40	80	4.0	40	80	400	150	-40~125	2500	2.0	1400	150	7	1000	1.0	100	5	40
MG50G2CL3	600	600	6	50	100	5.0	50	100	300	150	-40~125	2500	1.0	600	200	6	450	0.5	100	5	50
MG50G2YL1A	600	600	6	50	100	5.0	50	100	300	150	-40~125	2500	1.0	600	200	6	450	0.5	100	5	50
MG50M2CK2	1000	1000	7	50	100	5.0	50	100	350	150	-40~125	2500	1.0	1000	200	7	880	1.0	100	5	50
MG50M2YK1	1000	1000	7	50	100	5.0	50	100	350	150	-40~125	2500	1.0	1000	200	7	880	1.0	100	5	50
MG50M2YK9	1000	1000	7	50	100	5.0	50	100	350	150	-40~125	2500	1.0	1000	200	7	880	1.0	100	5	50
MG50N2CK1	1100	1100	7	50	100	5.0	50	100	350	150	-40~125	2500	1.0	1100	200	7	900	1.0	100	5	50
MG50Q2YK1	1200	1200	7	50	100	5.0	50	100	350	150	-40~125	2500	1.0	1200	200	7	900	1.0	100	5	50
MG75G2CL1	600	600	6	75	150	10	75	150	350	150	-40~125	2500	1.0	600	200	6	450	0.5	80	5	75
MG75G2YL1A	600	600	6	75	150	10	75	150	350	150	-40~125	2500	1.0	600	200	6	450	0.5	80	5	75
MG75H2CL1	600	600	6	75	150	10	75	150	350	150	-40~125	2500	1.0	600	200	6	500	0.5	80	5	75
MG75H2YL1A	600	600	6	75	150	10	75	150	350	150	-40~125	2500	1.0	600	200	6	500	0.5	80	5	75

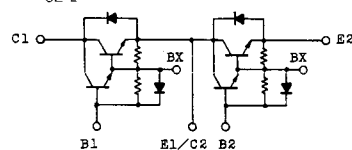
CK-3



CL-1

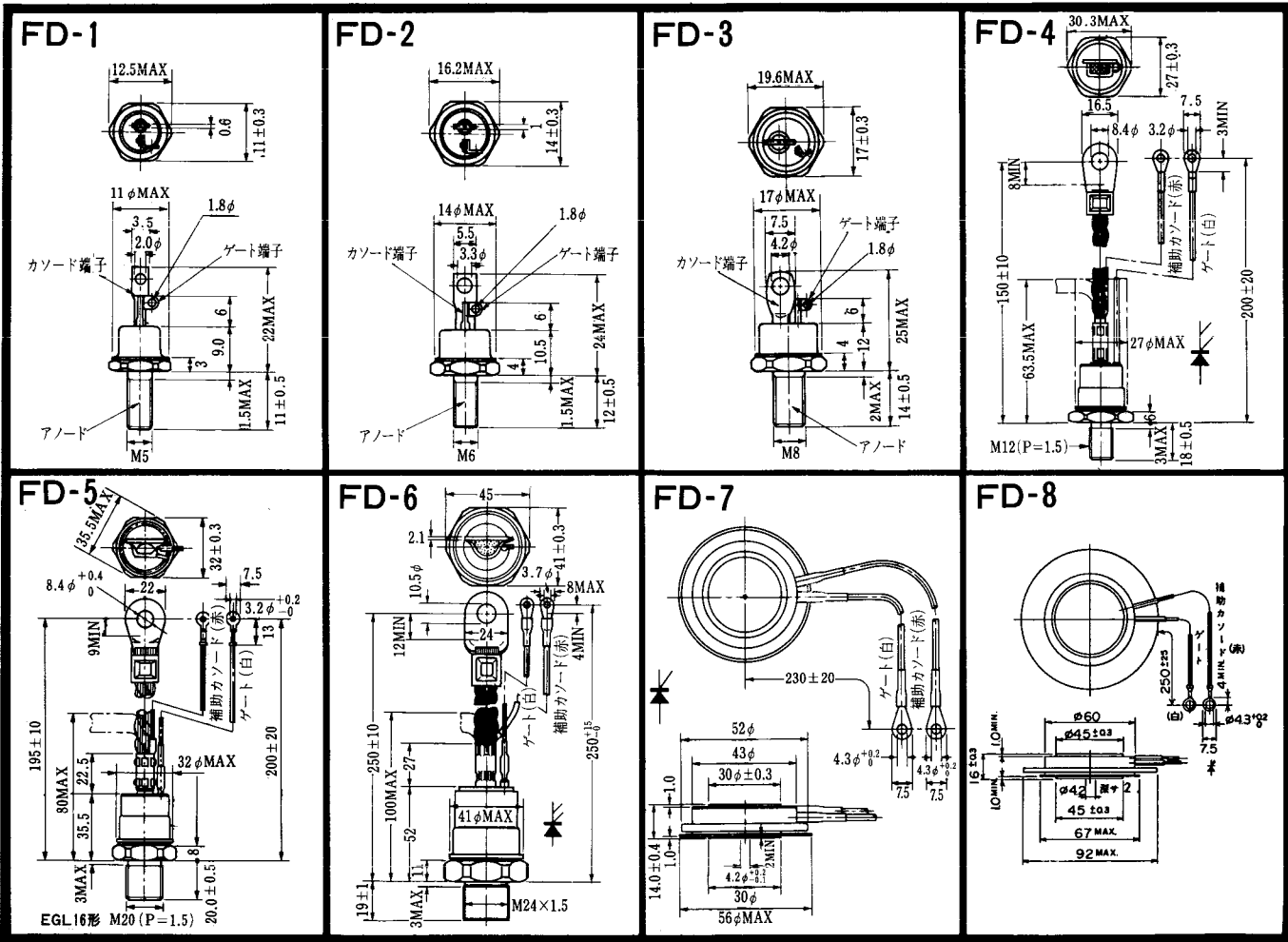


CL-2

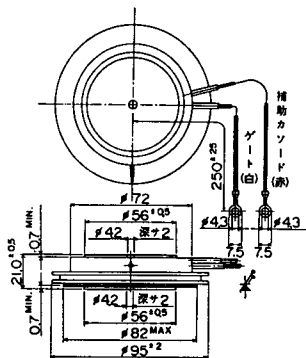


注3. スイッチング時間の \* 印はtyp. 値。

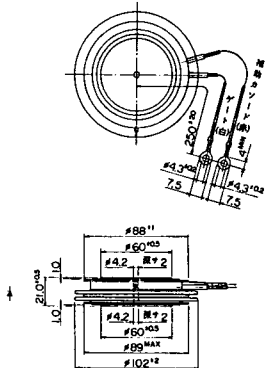
(T <sub>a</sub> =25°C)										エミッタ・コレクタ間ダイオード					熱抵抗		等 価 回 路	外 形 図	記 事	型 名		
飽和電圧 (V)		I <sub>c</sub> (A)	I <sub>B</sub> (A)	スイッチング時間 (μs)			I <sub>B1</sub> (A)	I <sub>B2</sub> (A)	V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	V <sub>F</sub> (V)	I <sub>F</sub> (A)	t <sub>rr</sub> (μs)	I <sub>F</sub> (A)	V <sub>BE</sub> (V)	di/dt (A/μs)					R <sub>th(j-c)</sub> (°C/W)	
V <sub>CE</sub>	V <sub>BE</sub>			t <sub>on</sub>	t <sub>stg</sub>	t <sub>f</sub>															トランジスタ部	ダイオード部
最大	最大			最大	最大	最大				最大	最大	最大	最大	最大	最大	最大	最大	最大				
2.5	3.5	15	0.3	2	11	6	0.3	-0.9	600	40	1.5	15	1.0	15	-3	60	0.83	1.3	CK-2	2-68B2A		MG15N2CK1
2.5	3.5	15	0.3	2	11	6	0.3	-0.9	600	40	1.5	15	1.0	15	-3	60	0.83	1.3	YK-1	2-94C3A		MG15N2YK1
2.5	3.5	25	0.5	2	15	5	0.5	-0.5	600	24	1.7	25	1.0	25	-3	100	0.41	1.3	CK-2	2-68B2A		MG25N2CK2
2.5	3.5	25	0.5	2	15	5	0.5	-0.5	600	24	1.7	25	1.0	25	-3	100	0.41	1.3	YK-1	2-94C3A		MG25N2YK1
2.5	3.5	25	0.5	2	15	5	0.5	-0.5	600	24	1.7	25	1.0	25	-3	100	0.41	1.3	YK-1	2-94D1A		MG25N2YK9
2.5	3.5	25	0.5	2	14	6	0.5	-1.5	600	24	1.7	25	1.0	25	-3	100	0.41	1.3	CK-2	2-68B2A		MG25N2CK1
2.5	3.5	25	0.5	2	14	6	0.5	-1.5	600	24	1.7	25	1.0	25	-3	100	0.41	1.3	YK-1	2-94C3A		MG25N2YK1
2.0	2.5	30	0.6	1	12	2	0.6	-0.6	300	10	1.5	30	1.0	30	-3	100	0.5	1.8	CL-1	2-68A2A		MG30G2CL3
2.0	2.5	30	1.0	1	12	3	0.6	-0.6	300	10	1.6	30	1.0	30	-2	60	0.625	1.8	YL-1	2-94C3A		MG30G2YL1
2.5	3.5	40	0.8	2	17	3	0.8	-2.4	600	15	1.8	40	1.2	40	-3	100	0.31	1.3	YK-1	2-108A2A		MG40S2YK1
2.0	2.5	50	1.0	1	12	2	1.0	-1.0	300	6	1.5	50	1.0	50	-3	100	0.41	1.3	CL-1	2-68A2A		MG50G2CL3
2.0	2.5	50	1.0	1	12	2	1.0	-1.0	300	6	1.7	50	1.0	50	-3	100	0.41	1.3	YL-1	2-94C3A		MG50G2YL1A
2.5	3.5	50	1.0	2	15	5	1.0	-1.0	600	12	1.7	50	1.0	50	-3	100	0.36	1.3	CK-2	2-68B2A		MG50M2CK2
2.5	3.5	50	1.0	2	15	5	1.0	-1.0	600	12	1.7	50	1.0	50	-3	100	0.36	1.3	YK-1	2-94C3A		MG50M2YK1
2.5	3.5	50	1.0	2	15	5	1.0	-1.0	600	12	1.7	50	1.0	50	-3	100	0.36	1.3	YK-1	2-94D1A		MG50M2YK9
2.5	3.5	50	1.0	2	15	5	1.0	-3.0	600	12	1.8	50	2.0	50	-3	100	0.35	1.3	CK-2	2-68B2A		MG50N2CK1
2.5	3.2	50	1.0	2	13	4	1.0	-3.0	600	12	1.8	50	1.0	50	-3	100	0.35	1.3	YK-1	2-94C3A		MG50N2YK1
2.0	2.5	75	1.5	2	12	2	1.5	-1.5	300	4	1.5	75	2.0	75	-3	100	0.35	1.3	CL-1	2-68A2A		MG75G2CL1
2.0	2.5	75	1.5	2	12	2	1.5	-1.5	300	4	1.7	75	1.0	75	-3	100	0.36	1.3	YL-1	2-94C3A		MG75G2YL1A
2.0	2.5	75	2.0	2	12	4	2.0	-2.0	300	4	1.5	75	2.0	75	-3	100	0.35	1.3	CL-1	2-68A2A		MG75H2CL1
2.0	2.5	75	2.0	2	12	4	2.0	-2.0	300	4	1.7	75	1.0	75	-3	100	0.35	1.3	YL-1	2-94C3A		MG75H2YL1A



FD-9

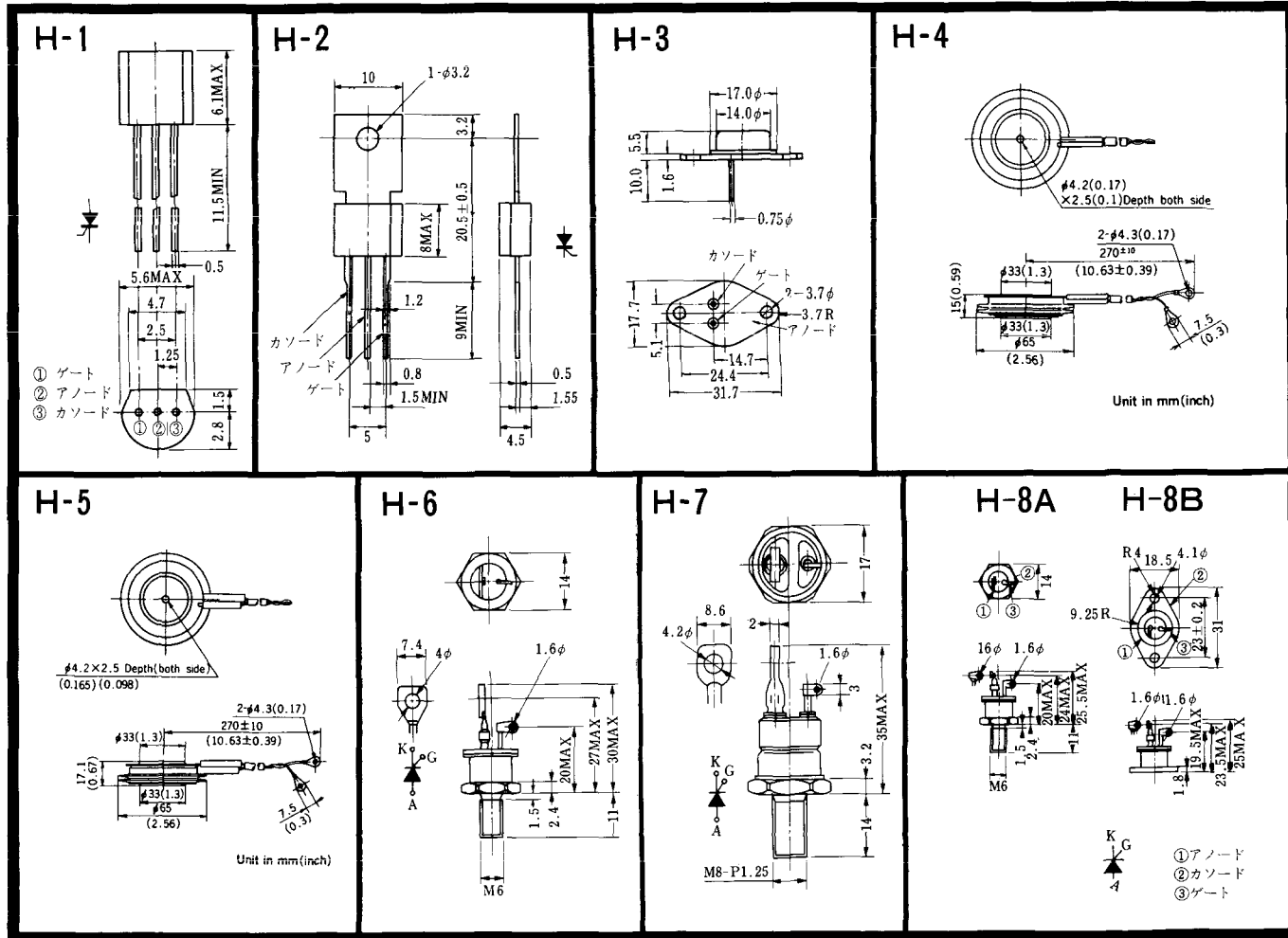


FD-10

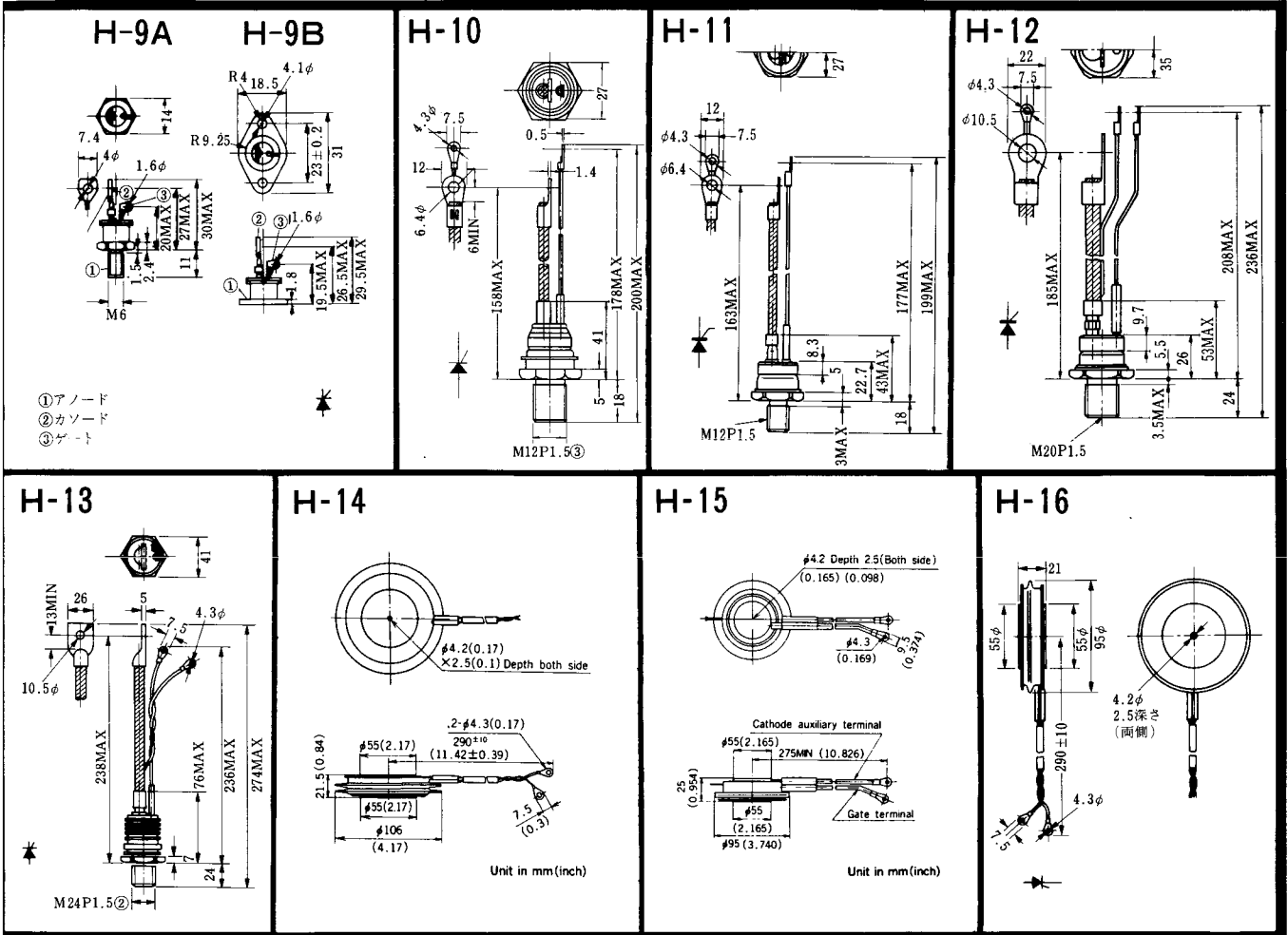


FD-11

FD-12

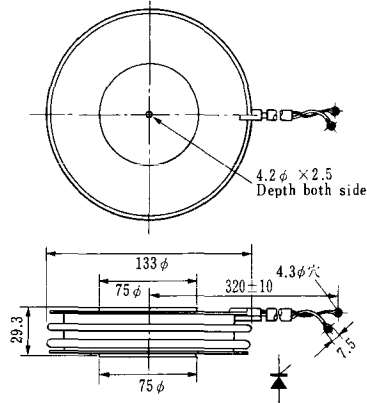


〈寸法図単位：mm〉

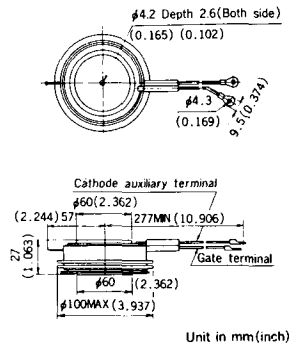


《寸法図単位：mm》

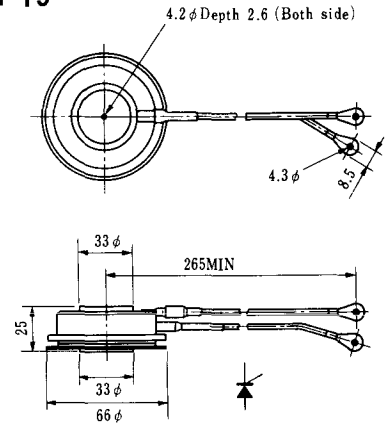
### H-17



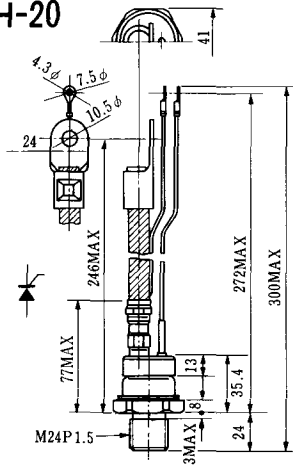
### H-18



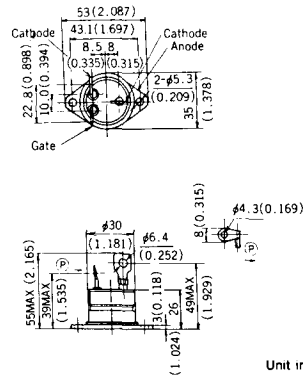
### H-19



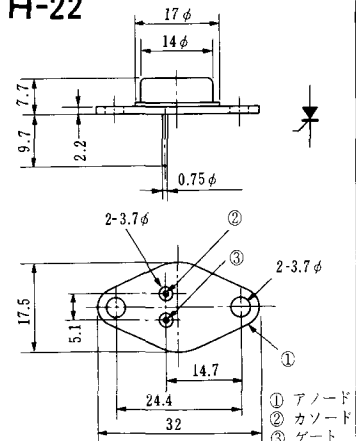
### H-20



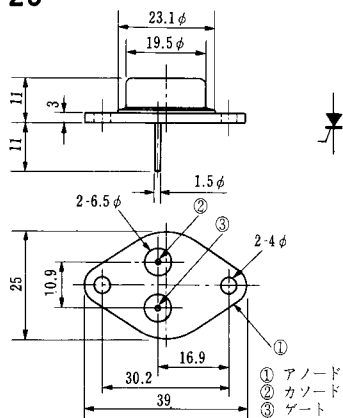
### H-21



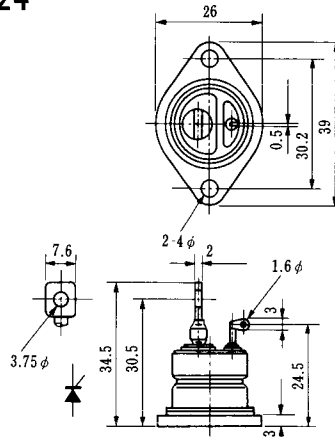
### H-22



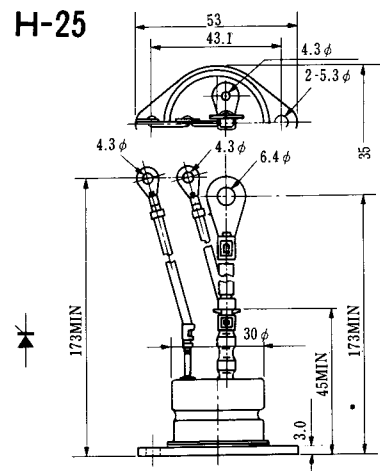
### H-23



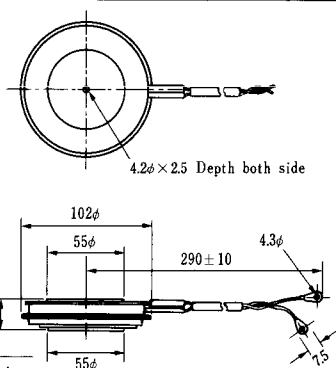
### H-24



### H-25

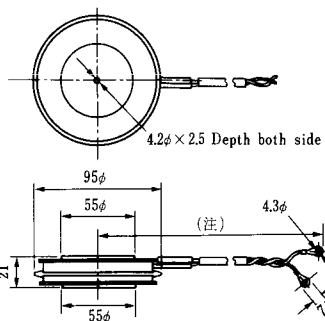


### H-26



Type	Direction of polarity
CA12	

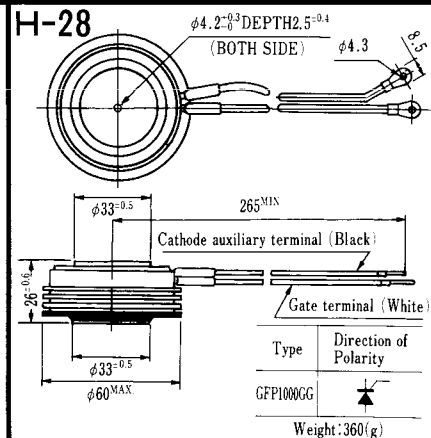
### H-27



Type	Direction of polarity
CF11V	

(注) CC11V : 400 ± 10  
CF11V : 250 ± 10

### H-28



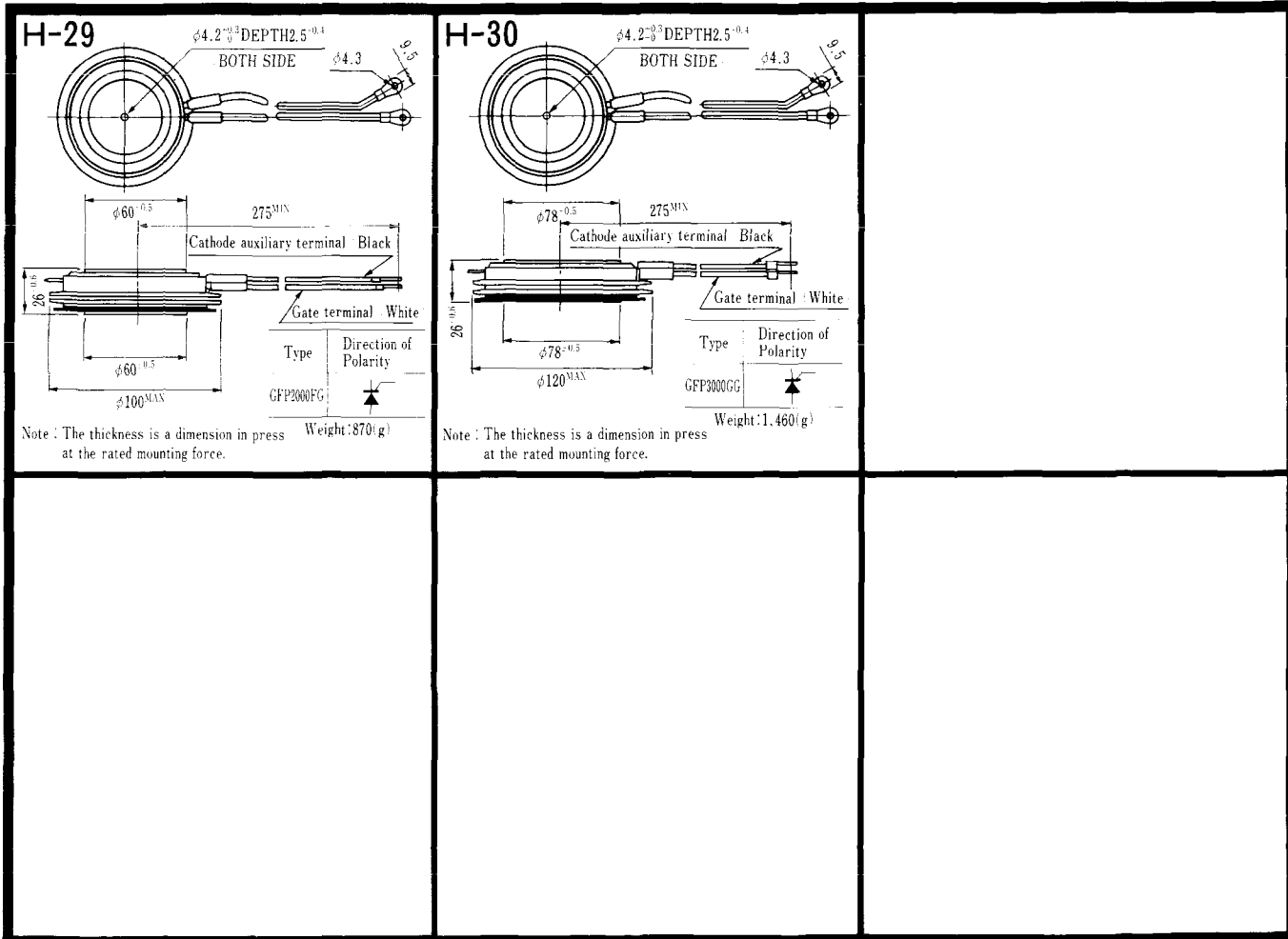
Type	Direction of Polarity
GFP100GG	

Weight: 360(g)

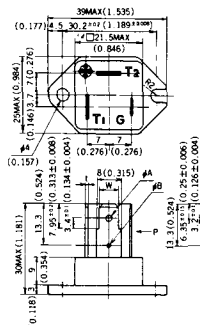
Note: The thickness is a dimension in press at the rated mounting force.

《寸法図単位: mm》





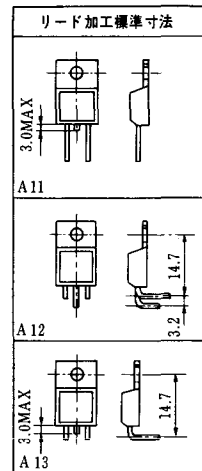
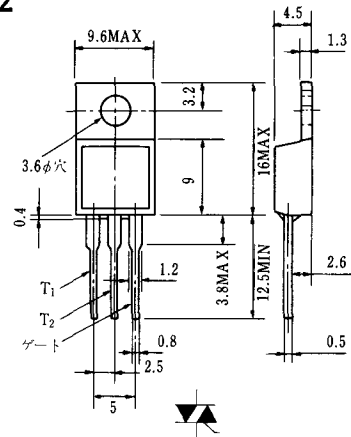
# HT-1



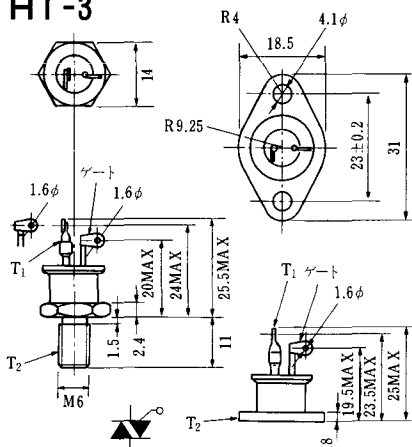
TERMINAL	t	W	φA	φB
T <sub>1</sub>	0.8±0.025 (0.031±0.001)	6.35±0.1 (0.250±0.004)	2.00 <sup>+0.1</sup> <sub>0</sub> (0.079 <sup>+0.004</sup> <sub>0</sub> )	1.3 (0.051)
T <sub>2</sub>	0.8±0.025 (0.031±0.001)	6.35±0.1 (0.250±0.004)	2.00 <sup>+0.1</sup> <sub>0</sub> (0.079 <sup>+0.004</sup> <sub>0</sub> )	1.3 (0.051)
G	0.5±0.025 (0.020±0.001)	4.75±0.1 (0.187±0.004)	1.55 <sup>+0.1</sup> <sub>0</sub> (0.061 <sup>+0.004</sup> <sub>0</sub> )	1.3 (0.051)

Unit in mm(inch)

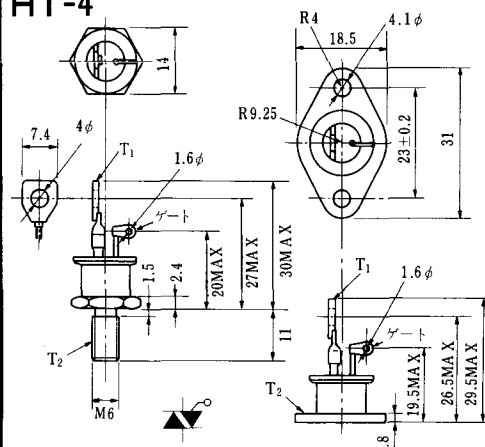
# HT-2



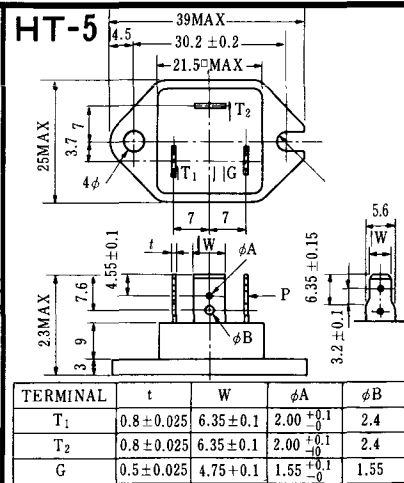
# HT-3



# HT-4



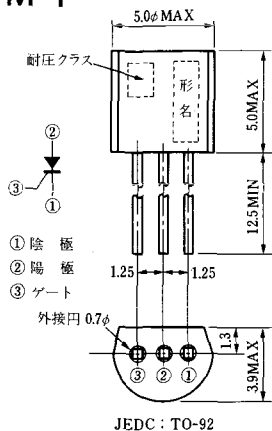
# HT-5



TERMINAL	t	W	φA	φB
T <sub>1</sub>	0.8±0.025	6.35±0.1	2.00 <sup>+0.1</sup> <sub>0</sub>	2.4
T <sub>2</sub>	0.8±0.025	6.35±0.1	2.00 <sup>+0.1</sup> <sub>0</sub>	2.4
G	0.5±0.025	4.75±0.1	1.55 <sup>+0.1</sup> <sub>0</sub>	1.55

《寸法図単位：mm》

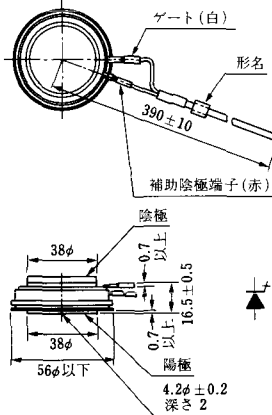
### M-1



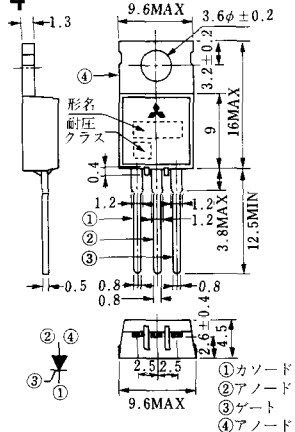
### M-2



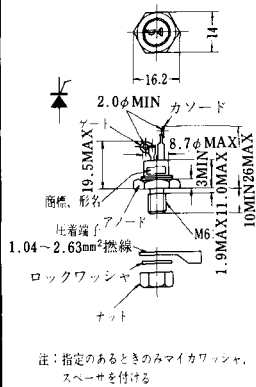
### M-3



### M-4



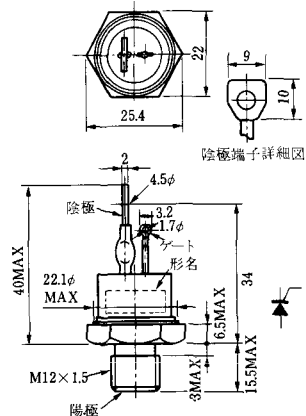
### M-5



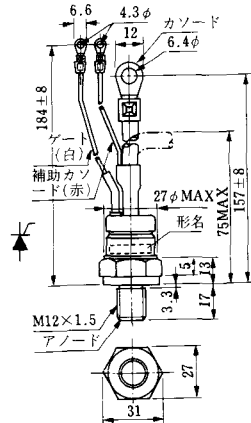
### M-6



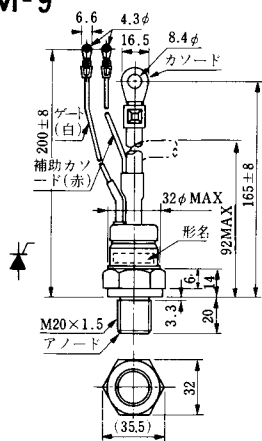
### M-7



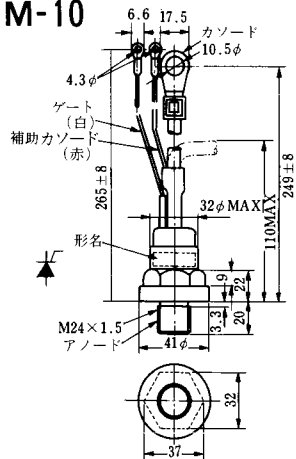
### M-8



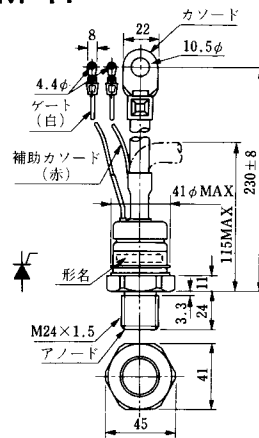
M-9



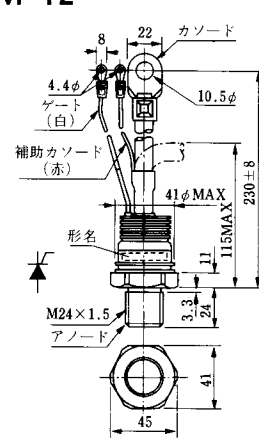
M-10



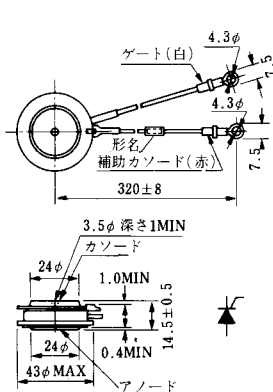
M-11



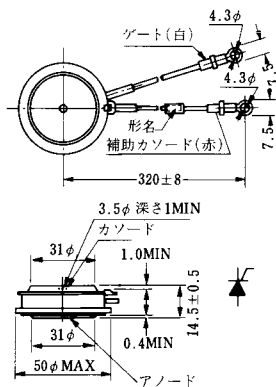
M-12



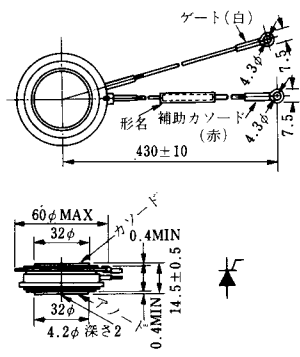
M-13



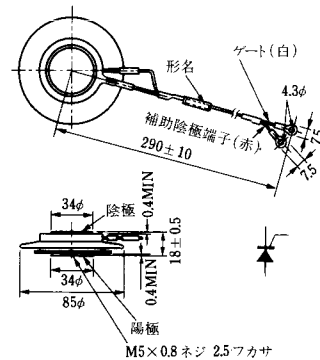
M-14

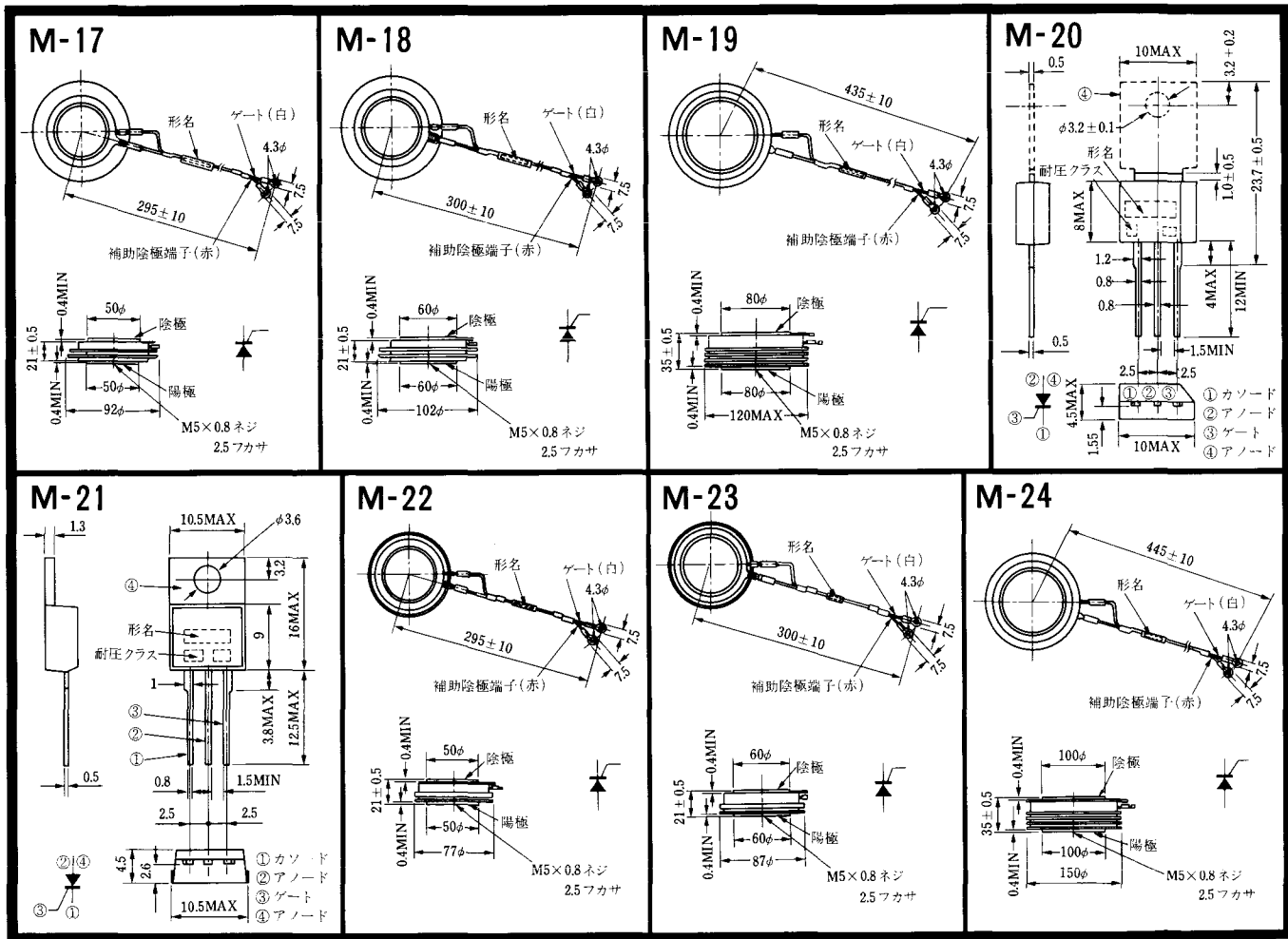


M-15



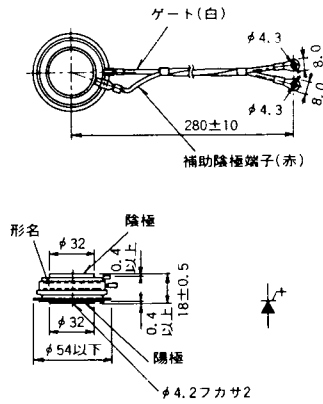
M-16



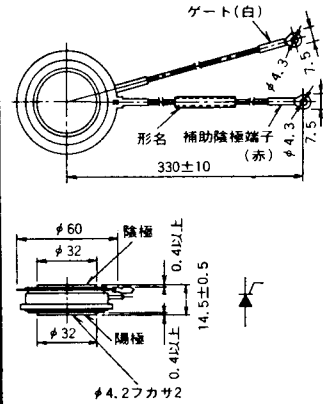


〈寸法図単位: mm〉

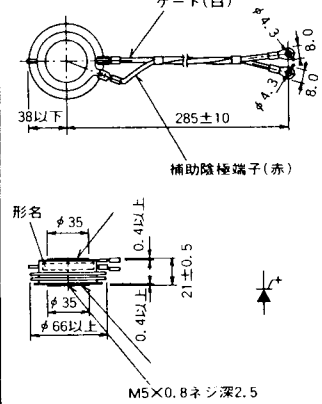
M-25



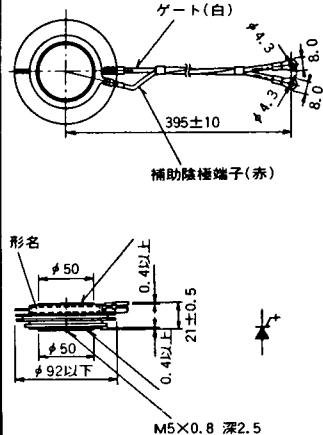
M-26



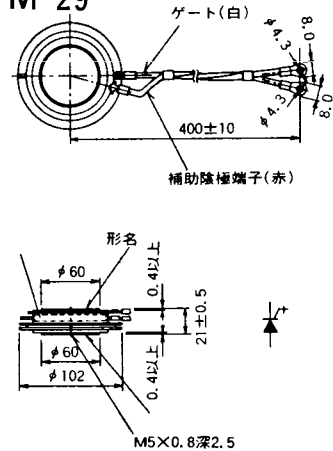
M-27



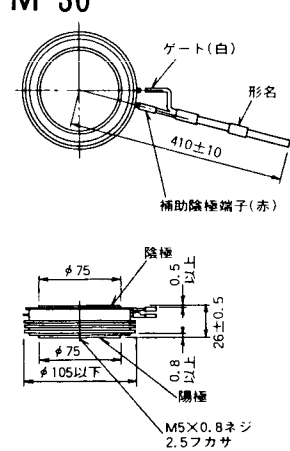
M-28



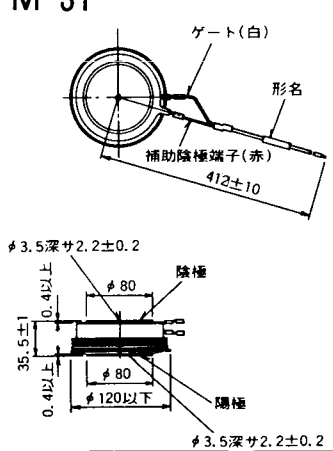
M-29



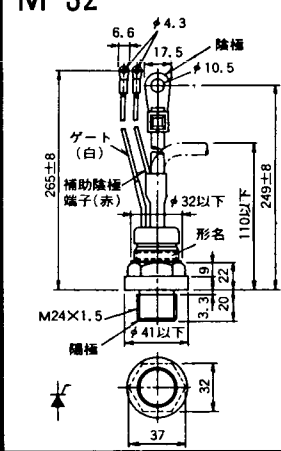
M-30



M-31

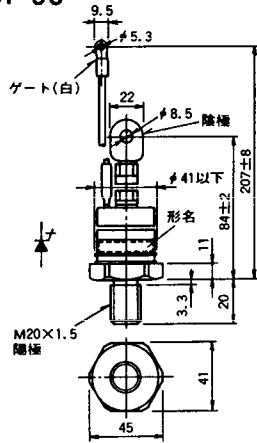


M-32

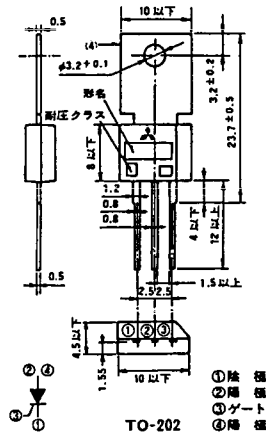


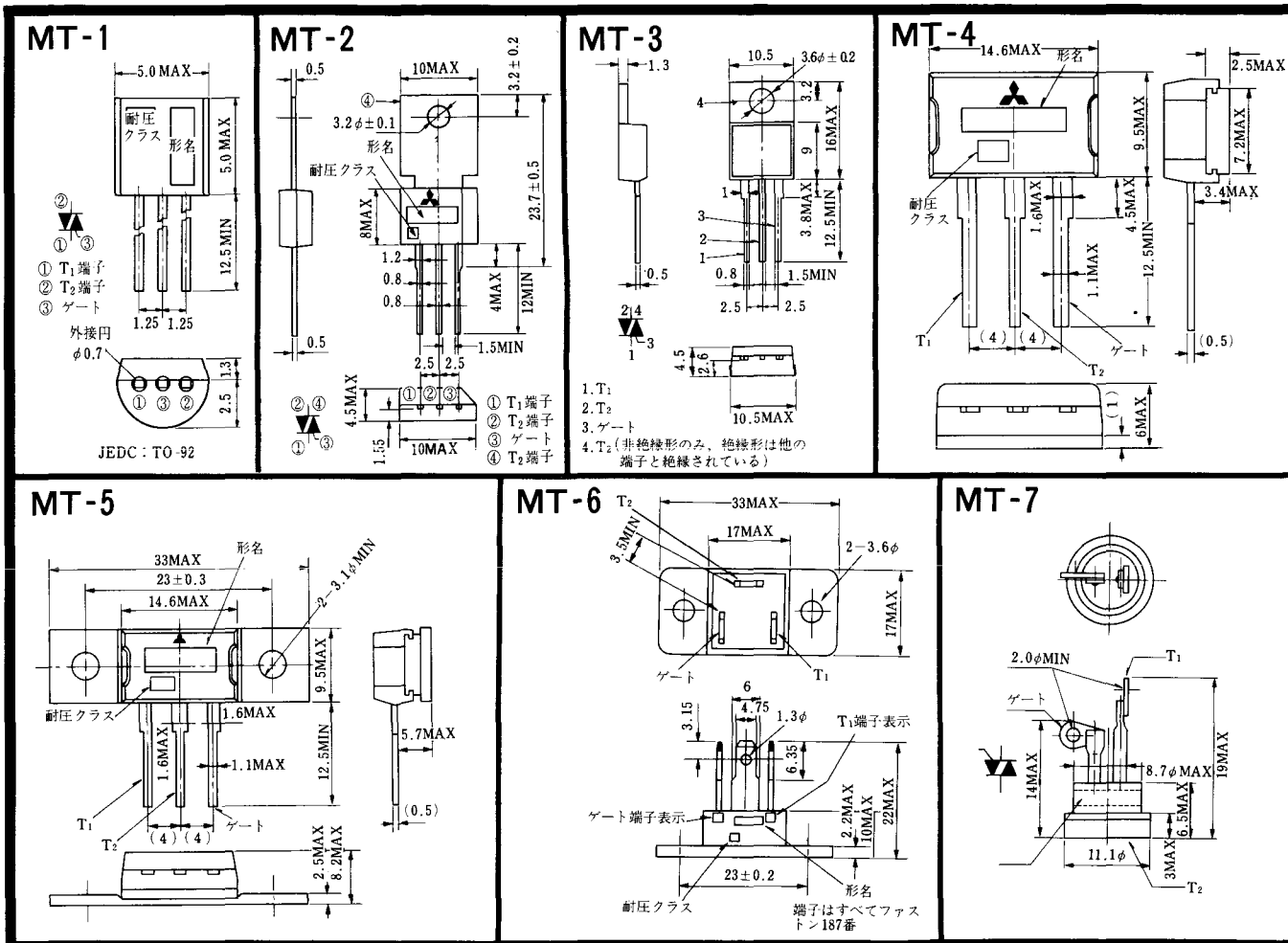
《寸法図単位：mm》

### M-33



### M-34





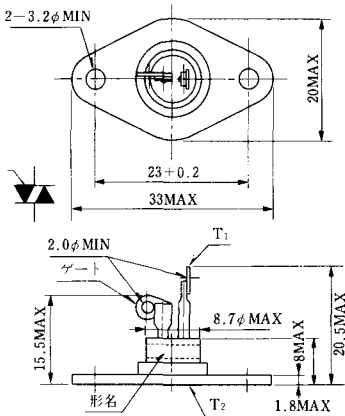
《寸法図単位：mm》



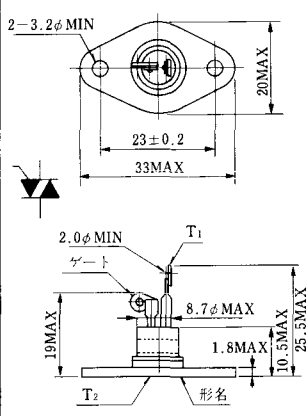
MT-8



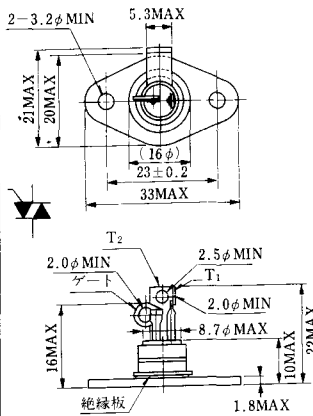
MT-9



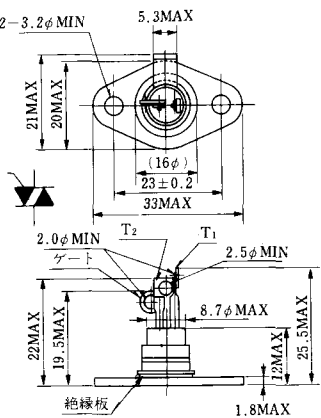
MT-10



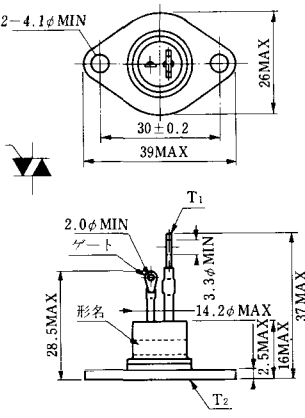
MT-11



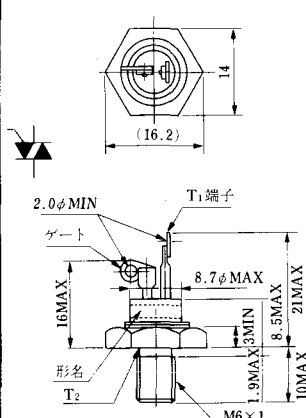
MT-12



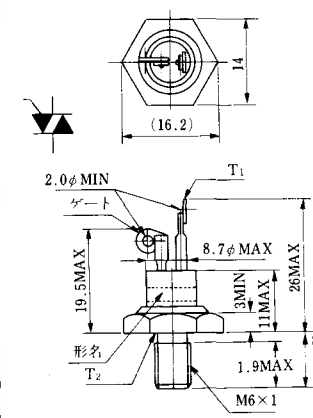
MT-13



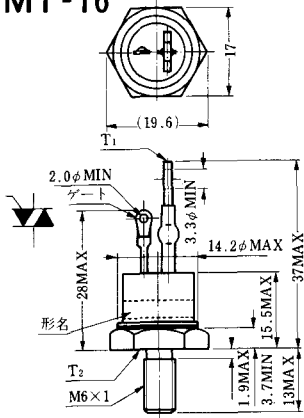
MT-14



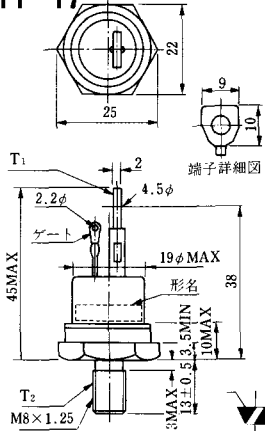
MT-15



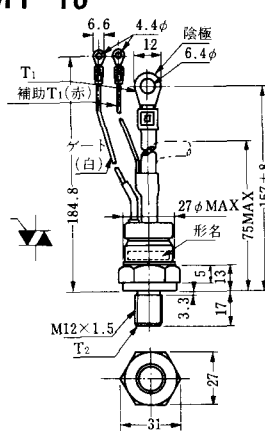
MT-16



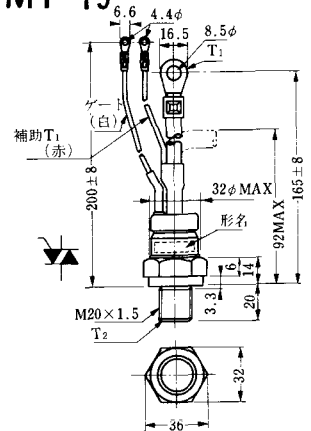
MT-17



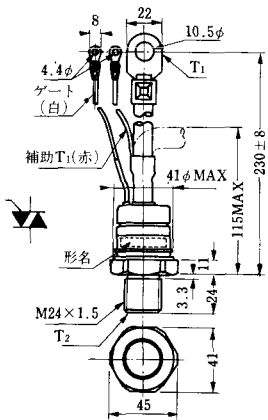
MT-18



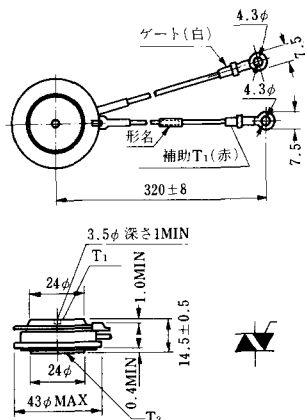
MT-19



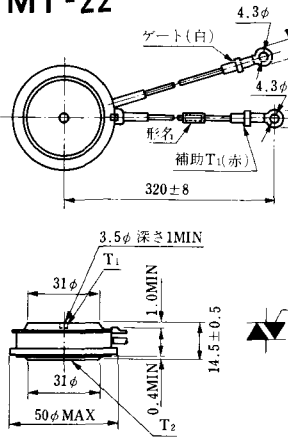
MT-20



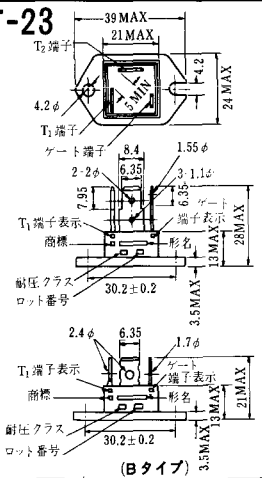
MT-21



MT-22

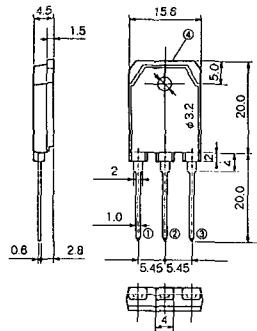


MT-23

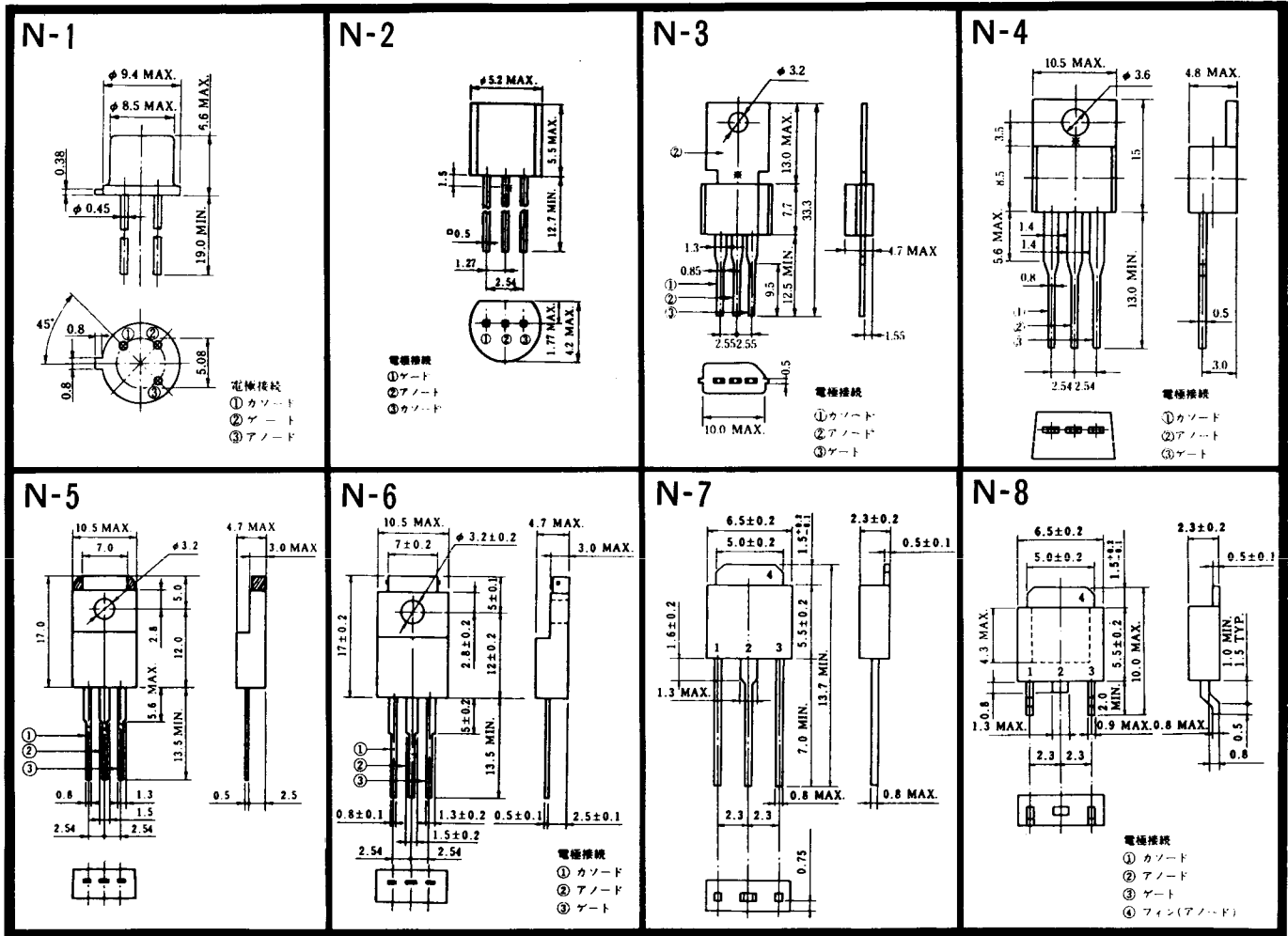


《寸法図単位：mm》

# MT-24

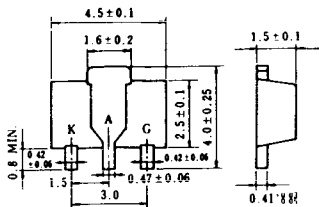


- ① T1 端子
  - ② T2 端子
  - ③ ゲート端子
  - ④ T2 端子
- TO - 3P



〈寸法図単位: mm〉

N-9



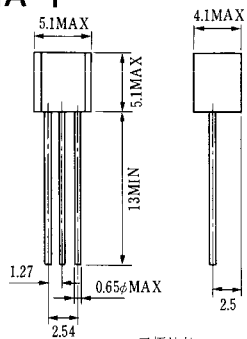
電極接続

K : カソード

A : アノード

G : ゲート

### NA-1

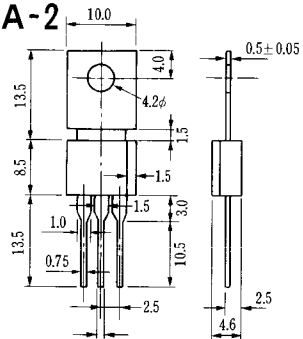


電極接続

1. ゲート
2. アノード
3. カソード

JEDEC: TO-92

### NA-2

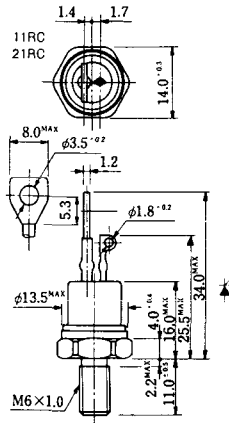


電極接続

1. カソード
2. アノード
3. ゲート

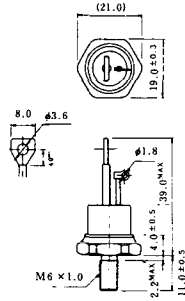
JEDEC: TO-202AA

### NI-1



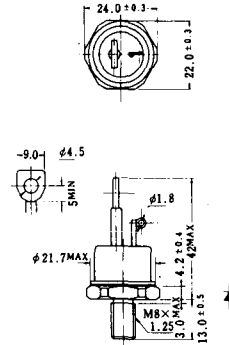
### NI-2

29RD



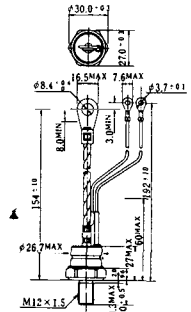
### NI-3

39RC  
59RC  
39RF  
59RF



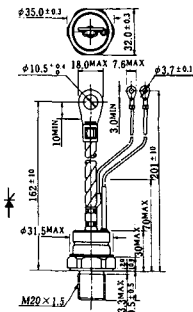
### NI-4

68RP, 88RP, 108RP, 68RS,  
88RS, 78RT, 88RLD, 88RLE,  
88RLF, 88RLG, 88RLH, 108RLE



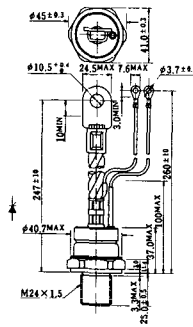
### NI-5

158RP, 208RP, 128RS, 178RS,  
156RT, 178RLD, 178RLE,  
178RLF, 178RLG, 178RLH,  
208RLE



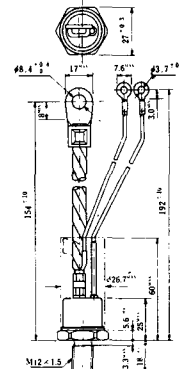
### NI-6

308RP, 408RP, 508RP, 278RS,  
358RS, 258RT, 258RLD, 258RLG,  
258RLH, 308RLE, 308RLF,  
358RLE



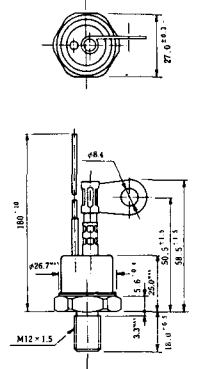
### NI-7

89RW<sub>JL</sub>  
129RW<sub>JL</sub>



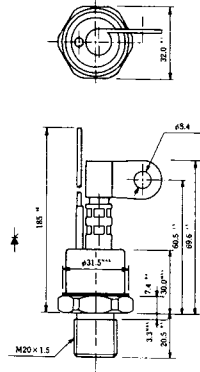
### NI-8

89RW  
129RW



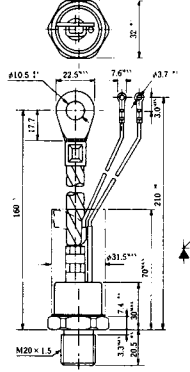
### NI-9

259RW  
309RW



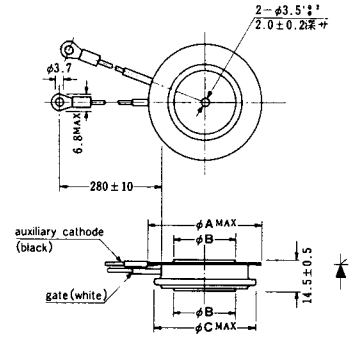
### NI-10

259RW<sub>J</sub>L  
309RW<sub>J</sub>L



### NI-11

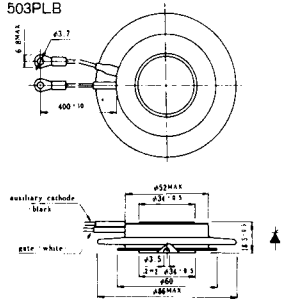
103PA  
253PA  
503PA  
553PA  
803PA  
103PLE  
103PLG  
103PLH  
203PLG  
253PLE  
253PLH  
353PLG  
403PLE  
403PLH



型号	103PA, 103PLE 103PLG, 103PLH	253PA, 203PLG 253PLE, 253PLH	503PA, 553PA 353PLG, 403PLE 403PLH	803PA
寸法				
A	40	46	55.5	55.5
B	16	22	30	32
C	36	42	50.5	50.5

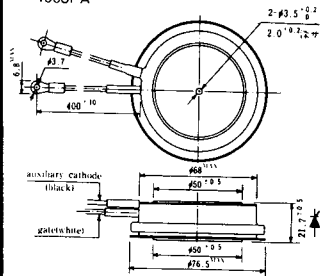
### NI-12

403PAB  
503PAB  
503PLB



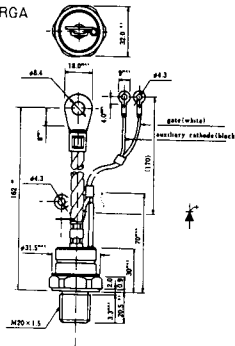
### NI-13

1003PA  
1003PAB  
1003PLF  
1003PLH  
1503PA



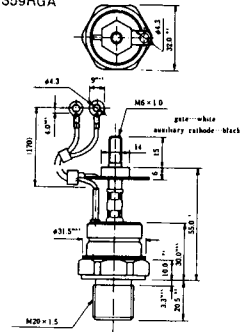
### NI-14

358RGA

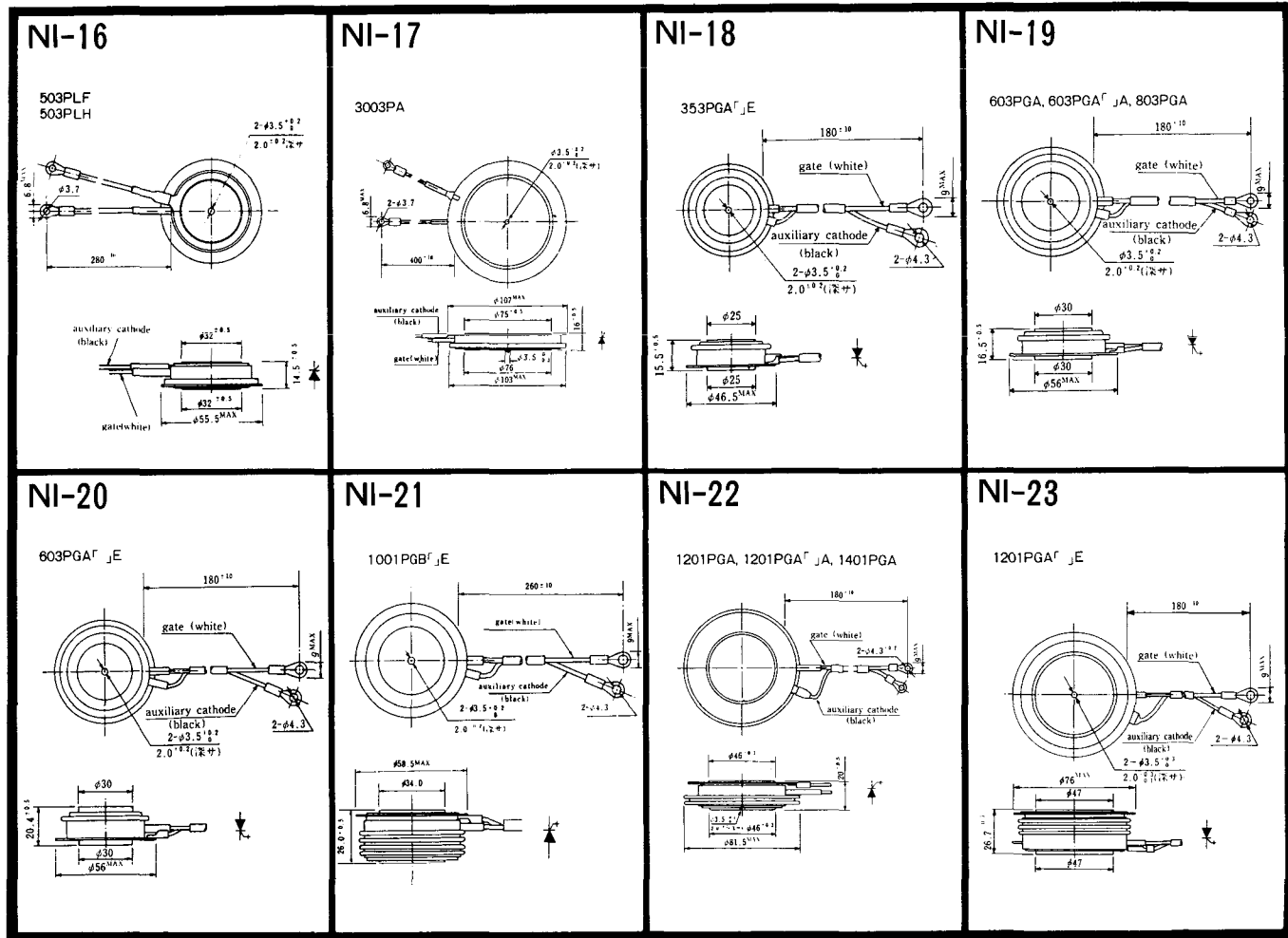


### NI-15

359RGA







《寸法图单位:mm》

NI-24

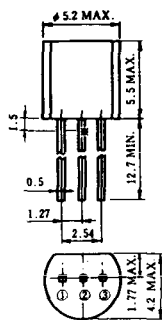
2001PGB<sup>r</sup> JE



NI-25

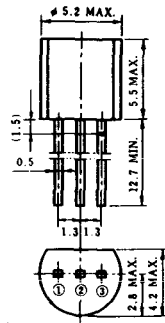
NI-26

### NT-1



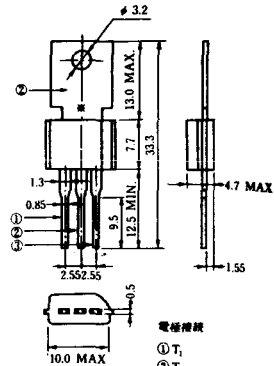
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-2



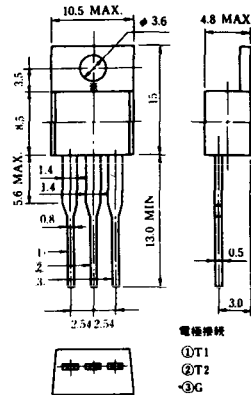
電極接続  
① T<sub>1</sub>  
② ゲート  
③ T<sub>2</sub>

### NT-3



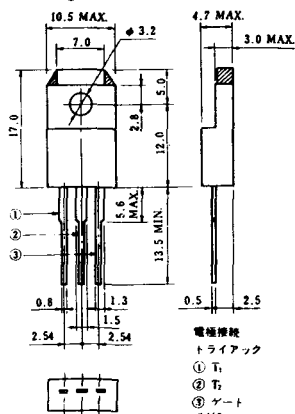
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート

### NT-4



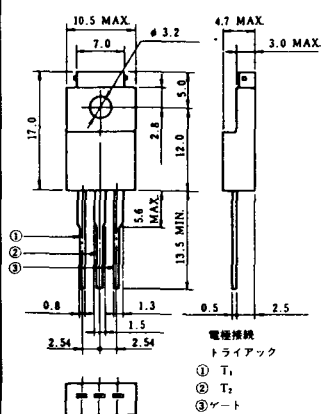
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G

### NT-5



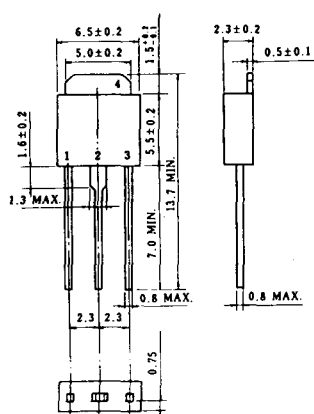
電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
④ G

### NT-6

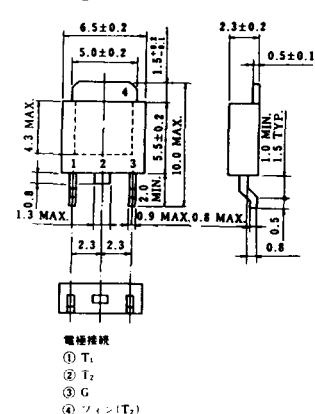


電極接続  
トライアック  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ ゲート  
④ G  
⑤ 2k

### NT-7

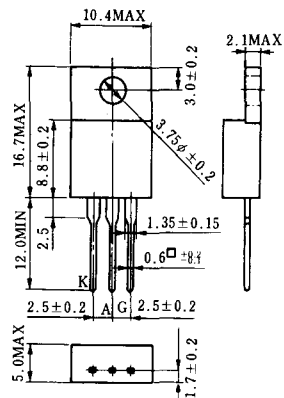


### NT-8

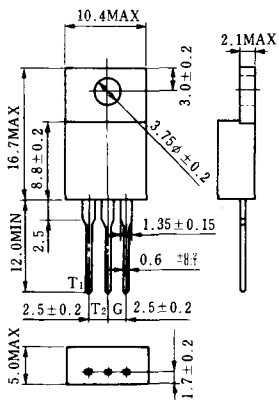


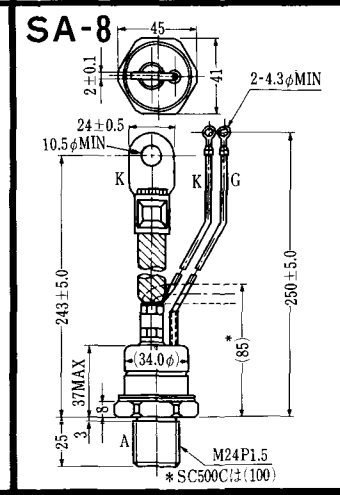
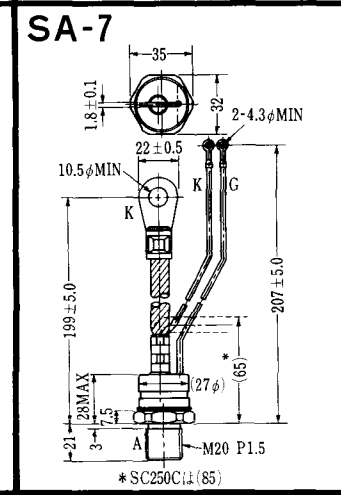
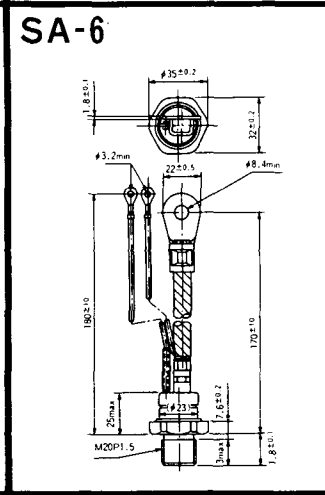
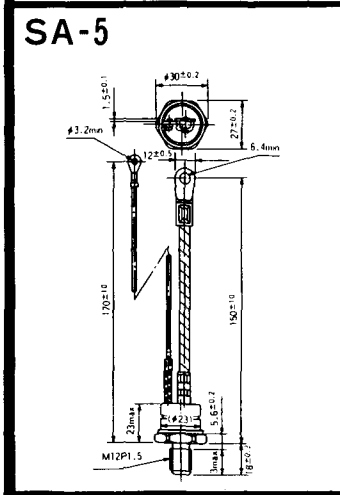
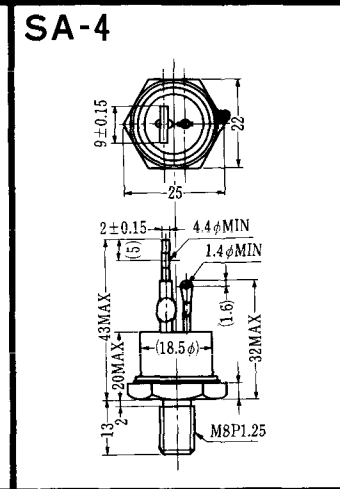
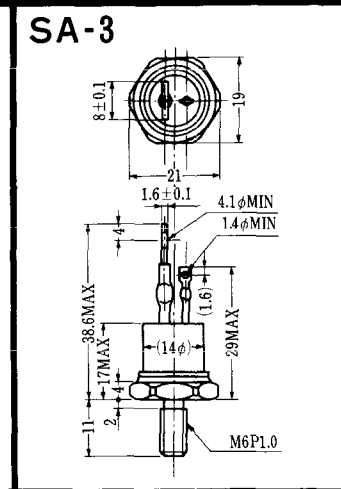
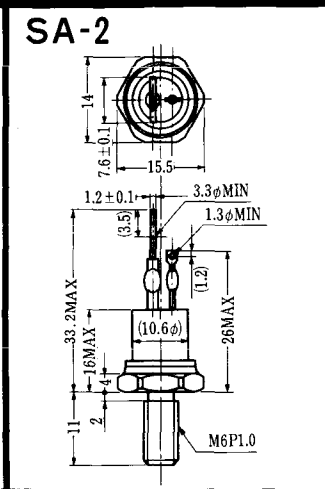
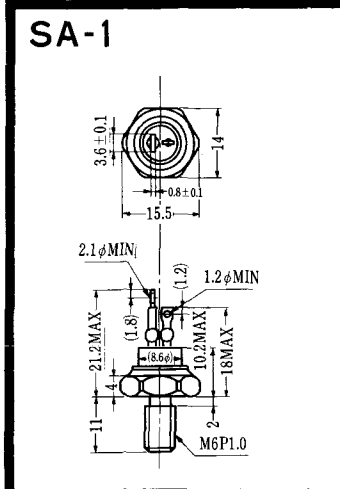
電極接続  
① T<sub>1</sub>  
② T<sub>2</sub>  
③ G  
④ ツイン(T<sub>2</sub>)

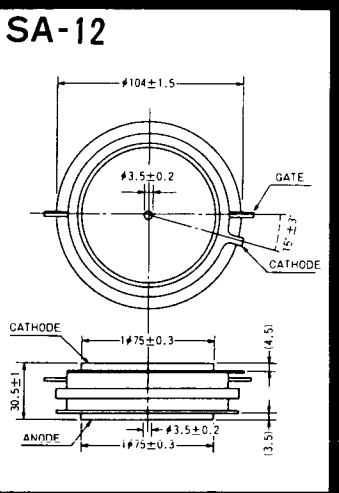
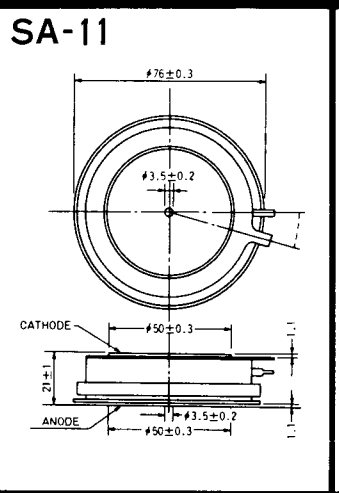
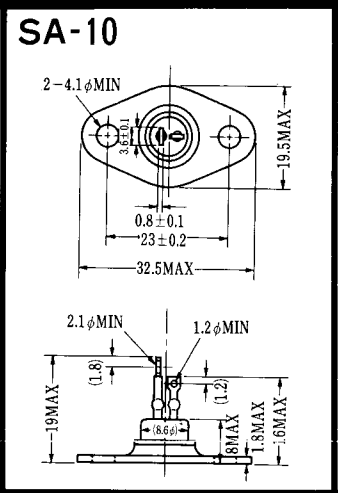
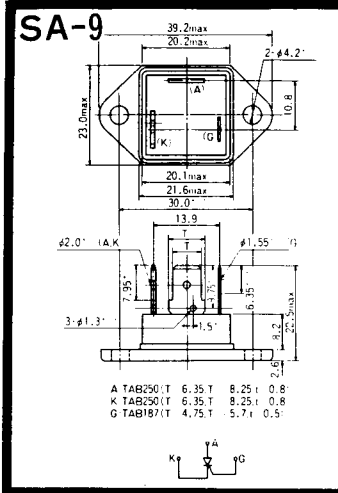
### S-1



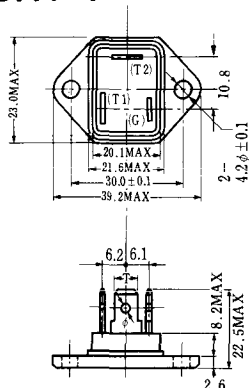
### ST-1





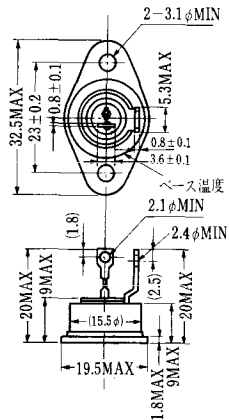


### SAT-1

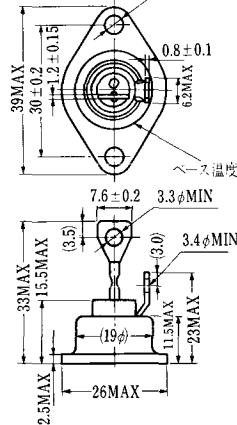


T1端子: フラスト>250 (T=6.35, t=0.8, φ=1.65)  
 T2端子: フラスト>250 (T=6.35, t=0.8, φ=1.65)  
 C 端子: フラスト>187 (T=4.75, t=0.5, φ=1.3)

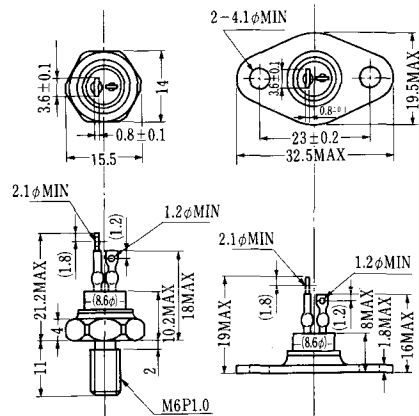
### SAT-2



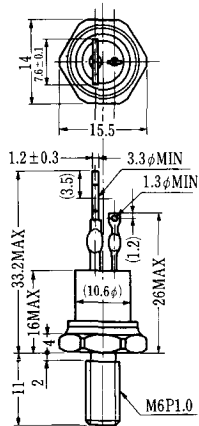
### SAT-3



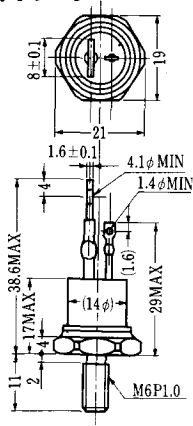
### SAT-4



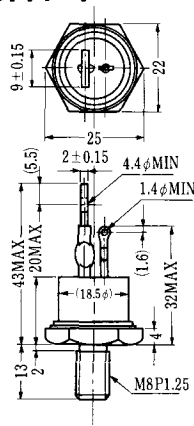
### SAT-5



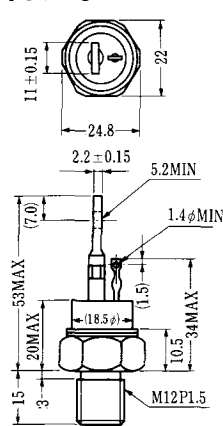
### SAT-6



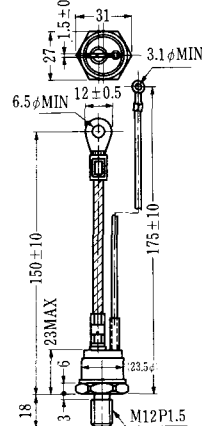
### SAT-7



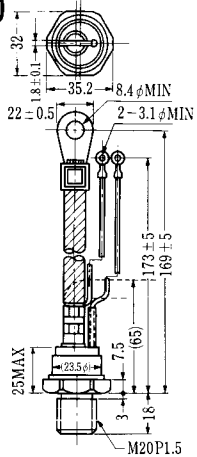
### SAT-8



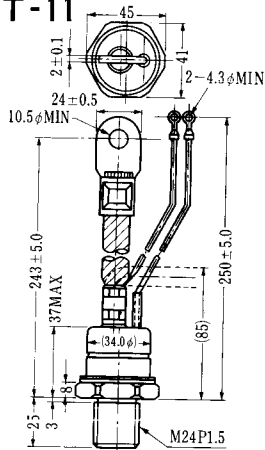
### SAT-9



SAT-10

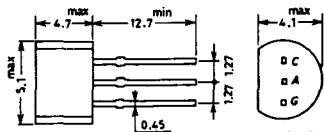


SAT-11



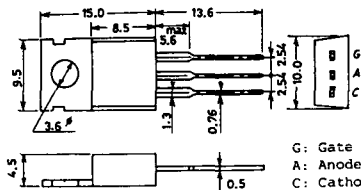


### SY-1 (1096A)



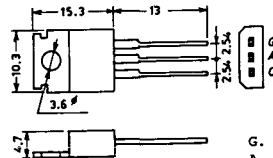
C: Cathode  
A: Anode  
G: Gate

### SY-2 (1151)



G: Gate  
A: Anode  
C: Cathode

### SY-3 (1104)



G: Gate  
A: Anode  
C: Cathode

### SY-4 (1150)



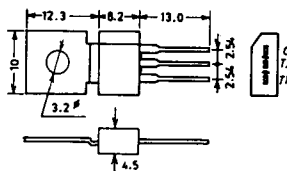
G: Gate  
A: Anode  
C: Cathode

1097A



G: Gate

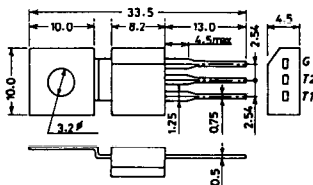
1102



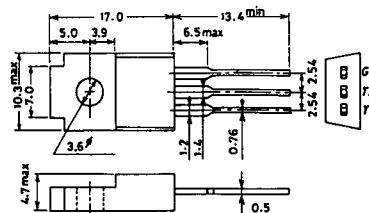
1141



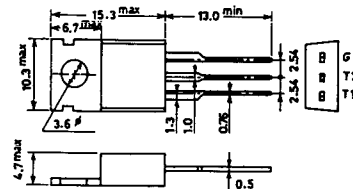
1142



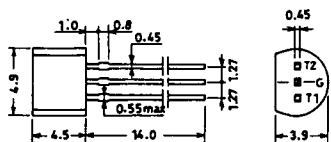
1144



1155

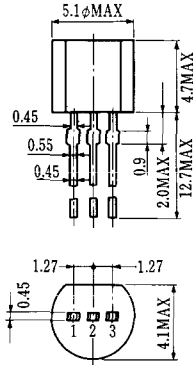


1192A



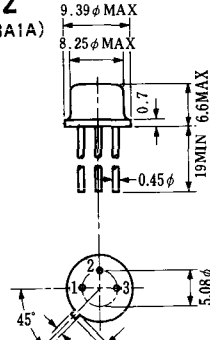
G: Gate

**T-1 (13-5A1A)**



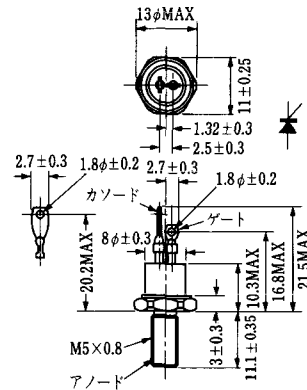
- 1 ゲート
- 2 アノード
- 3 カソード

**T-2 (13-8A1A)**



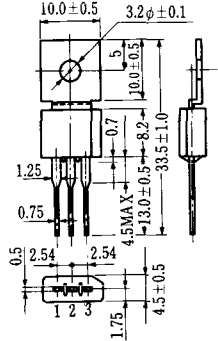
1. カソード
2. ゲート
3. アノード(ケース)

**T-3 (13-8C1A)**



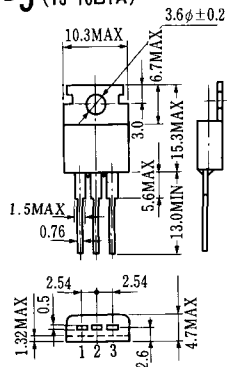
- 1 カソード
- 2 アノード
- 3 ゲート

**T-4 (13-10A1A)**



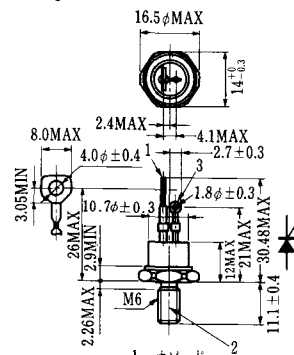
- 1 カソード
- 2 アノード
- 3 ゲート

**T-5 (13-10B1A)**



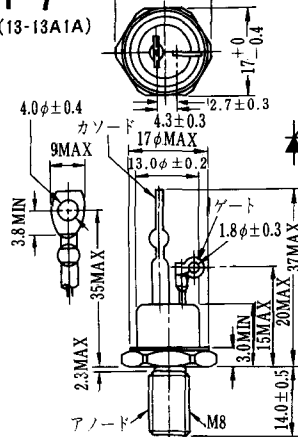
- 1 カソード
- 2 アノード
- 3 ゲート

**T-6 (13-11D1A)**



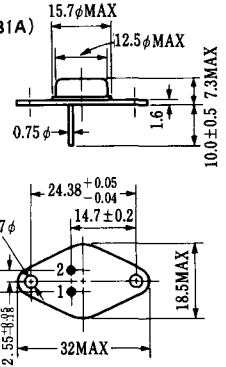
- 1 カソード
- 2 アノード
- 3 ゲート

**T-7 (13-13A1A)**



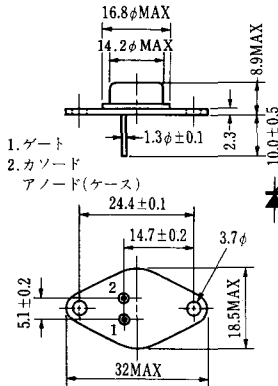
- 1 カソード
- 2 アノード
- 3 ゲート

**T-8 (13-13B1A)**



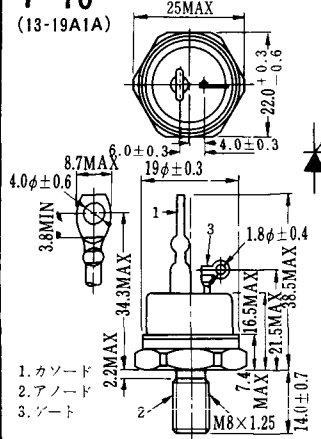
1. ゲート
2. カソード
3. アノード(ケース)

**T-9 (13-14A1A)**



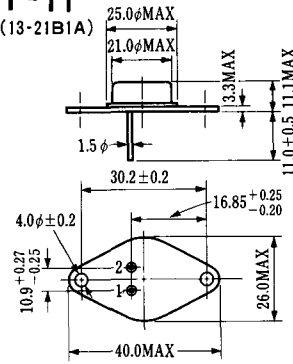
- 1. ゲート
- 2. カソード
- アノード(ケース)

**T-10 (13-19A1A)**



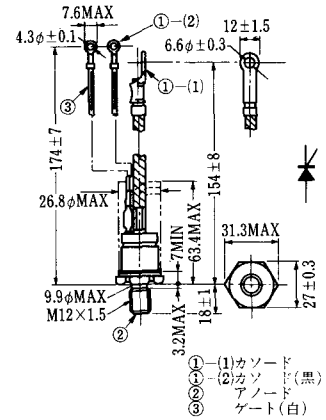
- 1. カソード
- 2. アノード
- 3. ゲート

**T-11 (13-21B1A)**



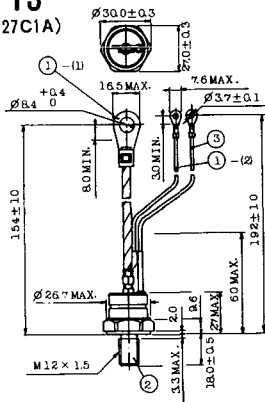
- 1. ゲート
- 2. カソード
- アノード(ケース)

**T-12 (13-27B1B)**



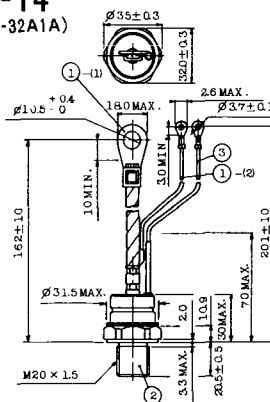
- ①(1) カソード
- ②(2) カソード(黒)
- ③(3) アノード
- ④(4) ゲート(白)

**T-13 (13-27C1A)**



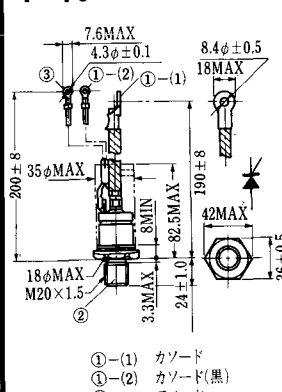
- 1-(1) カソード
- 2-(2) カソード(黒)
- 3-(3) アノード
- 4-(4) ゲート(白)

**T-14 (13-32A1A)**



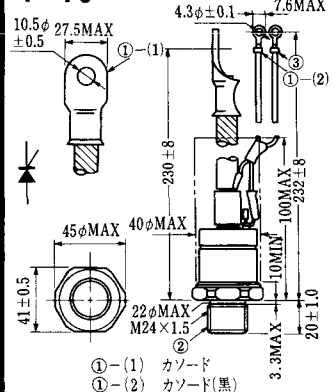
- 1-(1) カソード
- 2-(2) カソード(黒)
- 3-(3) アノード
- 4-(4) ゲート(白)

**T-15 (13-35C1B)**



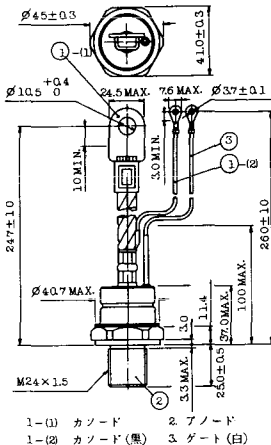
- ①(1) カソード
- ②(2) カソード(黒)
- ③(3) アノード
- ④(4) ゲート(白)

**T-16 (13-40B1A)**

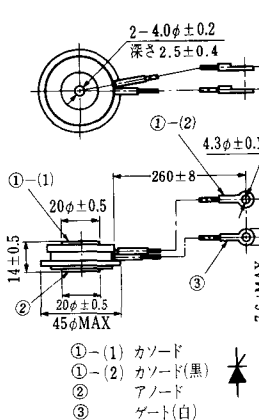


- ①(1) カソード
- ②(2) カソード(黒)
- ③(3) アノード
- ④(4) ゲート(白)

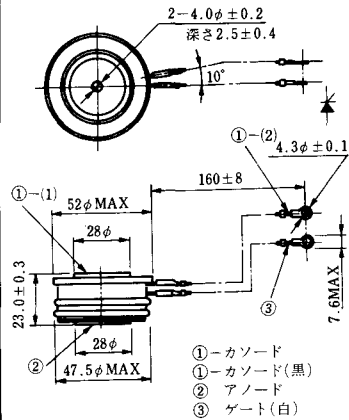
T-17 (13-42A1A)



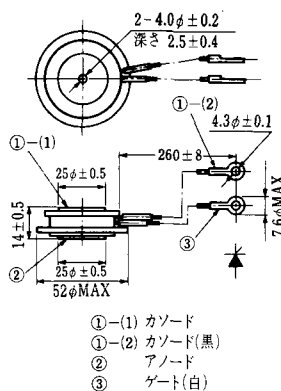
T-18 (13-45D1A)



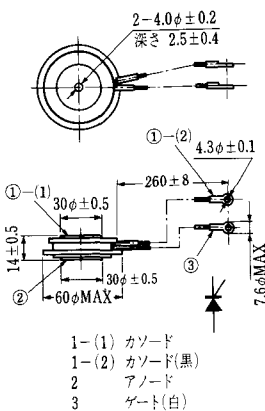
T-19 (13-52B1A)



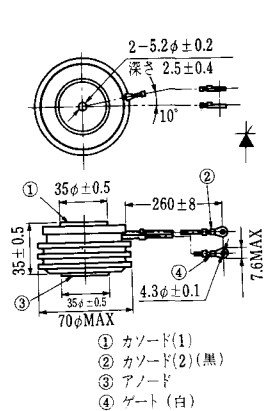
T-20 (13-52C1A)



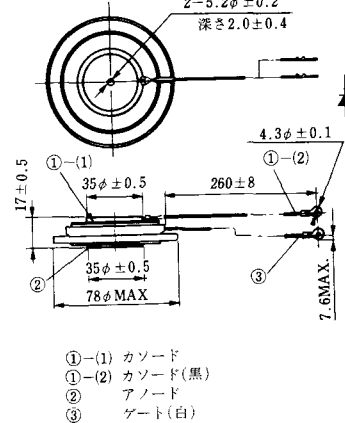
T-21 (13-60A1A)



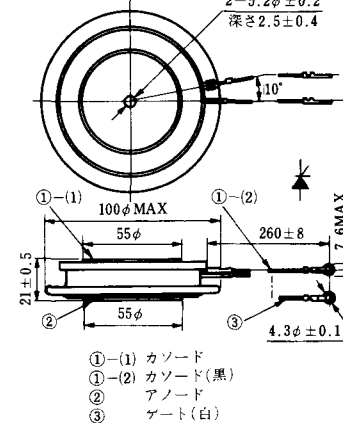
T-22 (13-70C1A)

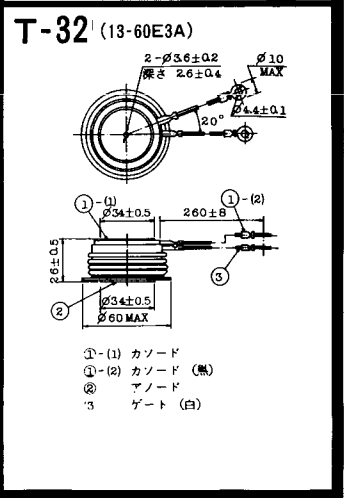
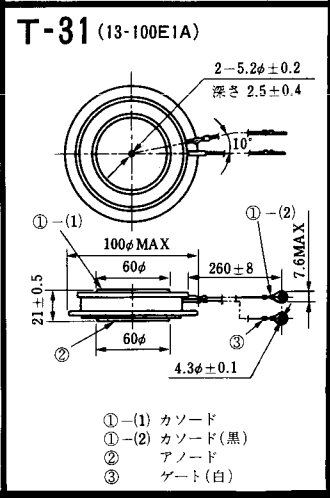
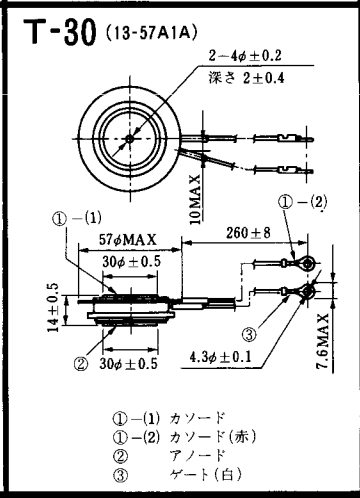
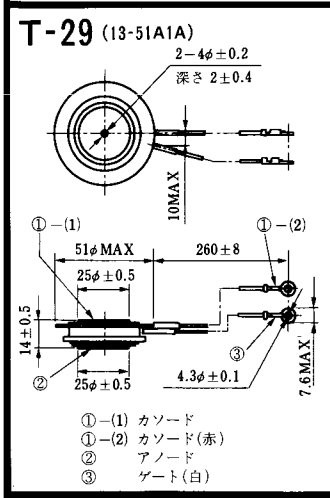
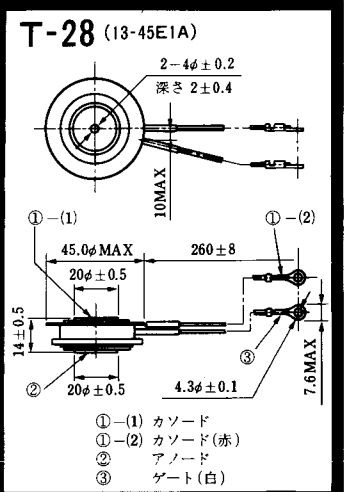
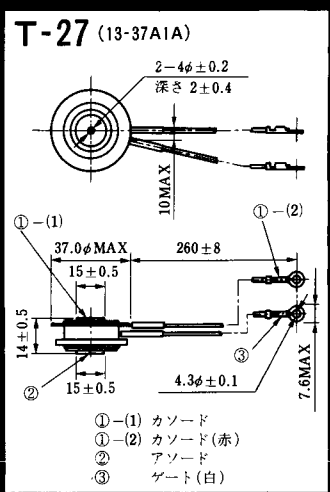
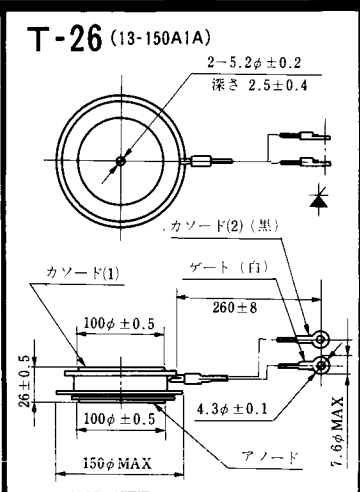
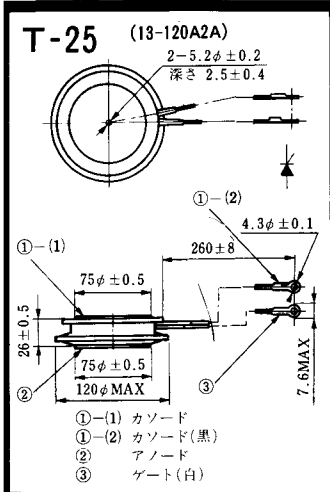


T-23 (13-78A1A)

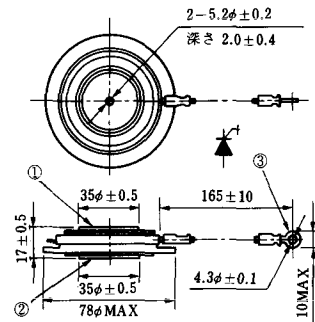


T-24 (13-100C1A)



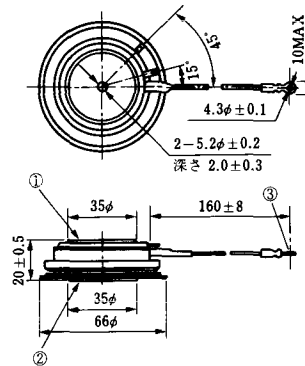


**T-33 (13-78B1A)**



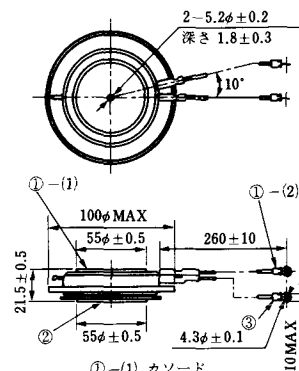
- ① カソード
- ② アノード
- ③ ゲート

**T-34 (13-66A1A)**



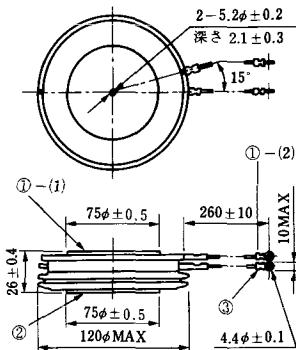
- ① カソード
- ② アノード
- ③ ゲート

**T-35 (13-100D1A)**



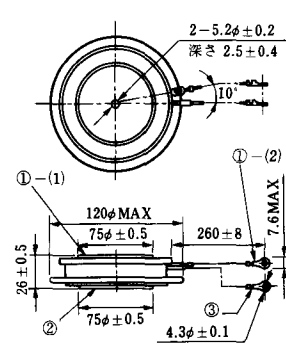
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-36 (13-120E1A)**



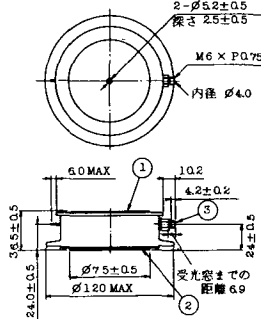
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-37 (13-120A1A)**



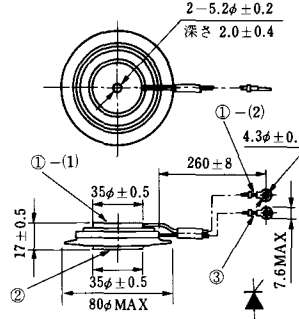
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-38 (13-120C1A)**



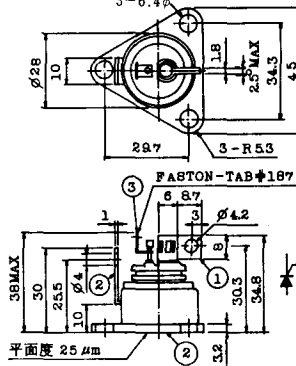
- ① カソード
- ② アノード
- ③ ゲート

**T-39 (13-80B1A)**



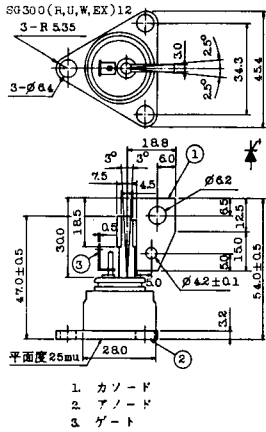
- ①-(1) カソード
- ①-(2) カソード(黒)
- ② アノード
- ③ ゲート(白)

**T-40 (13-28A1A)**

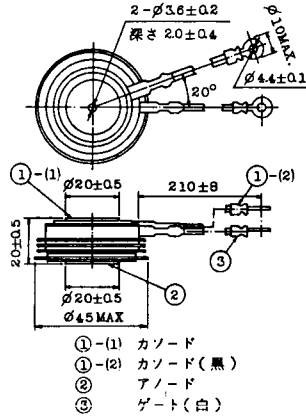


- 1. カソード
- 2. アノード
- 3. ゲート

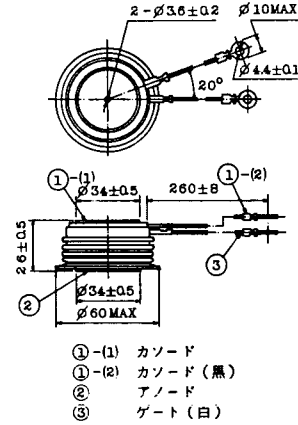
### T-41 (13-28A2A)



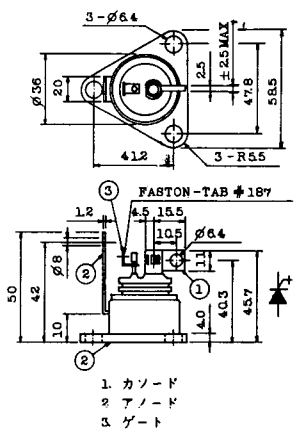
### T-42 (13-45F1A)



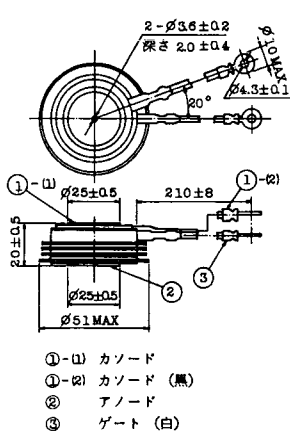
### T-43 (13-60E2A)



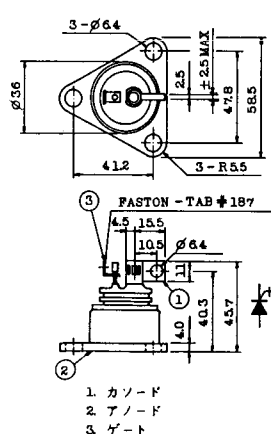
### T-44 (13-36A1A)



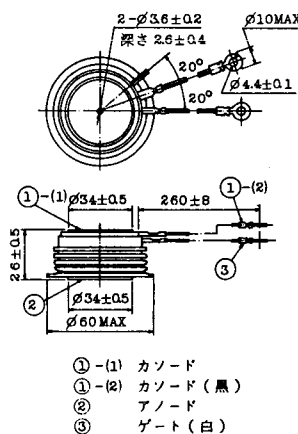
### T-45 (13-51B1A)



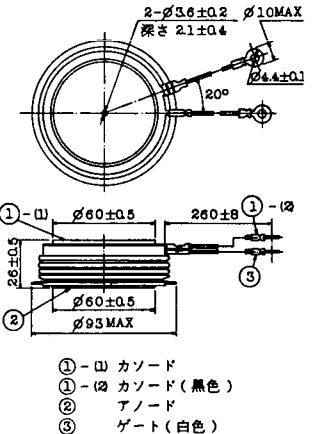
### T-46 (13-36B1A)



### T-47 (13-60E1A)

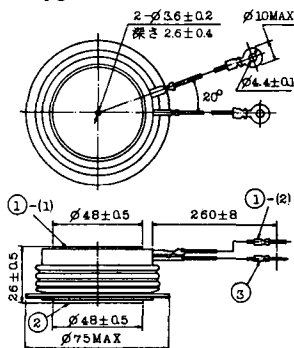


### T-48 (13-93C1A)



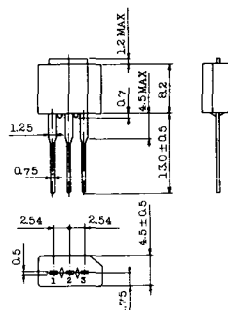


T-49 (13-75A1A)



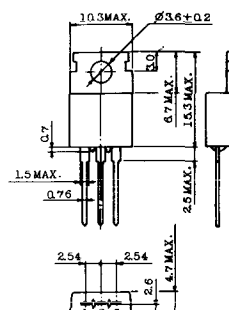
- 1-(1) カソード
- 1-(2) カソード (黒)
- 2 アノード
- 3 ゲート (白)

T-50 (13-10A3A)



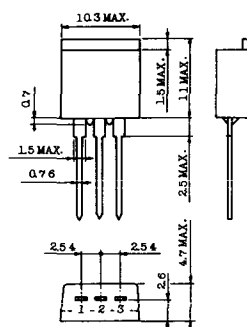
- 1 カソード
- 2 アノード
- 3 ゲート

T-51 (13-10D1A)



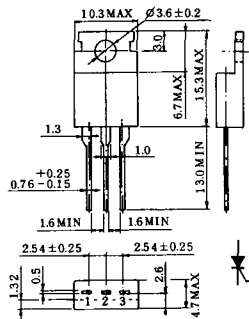
- 1 カソード
- 2 アノード
- 3 ゲート

T-52 (13-10D2A)



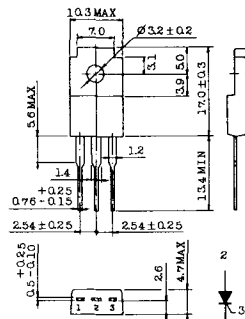
- 1 カソード
- 2 アノード
- 3 ゲート

T-53 (13-10E1B)



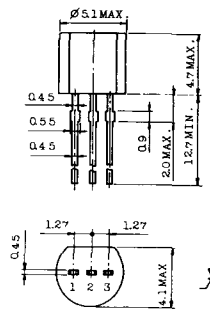
- 1 カソード
- 2 アノード
- 3 ゲート

T-54 (13-10F1B)



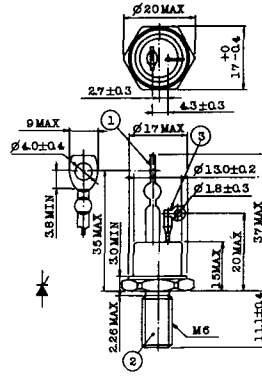
- 1 カソード
- 2 アノード
- 3 ゲート

T-55 (13-5A1D)



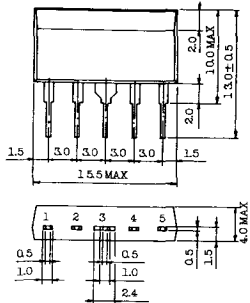
- 1 カソード
- 2 アノード
- 3 ゲート

T-56 (13-13C1A)



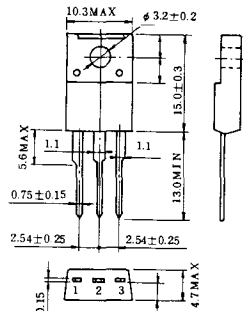
- 1 カソード
- 2 アノード
- 3 ゲート

T-57 (12-16C1A)



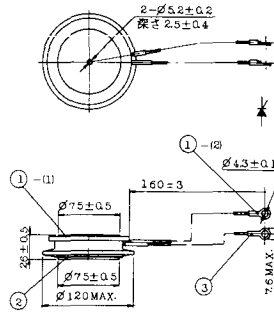
1. アノード (主)
2. ゲート (主)
3. カソード (共通)
4. ゲート (補助)
5. アノード (補助)

T-58 (13-10H1B)



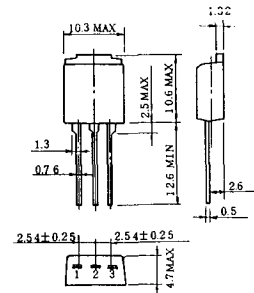
1. カソード
2. アノード
3. ゲート

T-59 (13-120A1A)



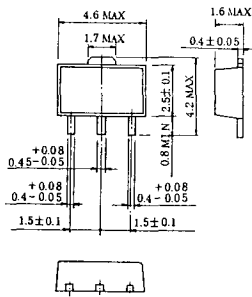
- 1-(1) カソード
- 1-(2) カソード (黒)
- 2 アノード
- 3 ゲート (白)

T-60



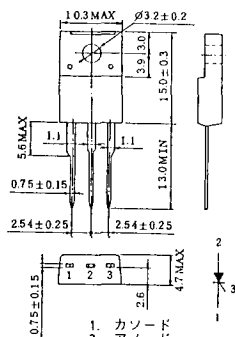
1. カソード
2. アノード
3. ゲート

T-61 (13-5B1A)



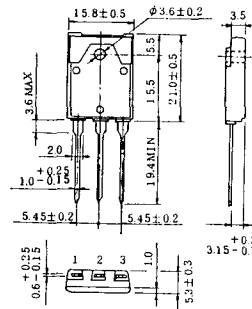
1. ゲート
2. アノード
3. カソード

T-62 (13-10H1A)

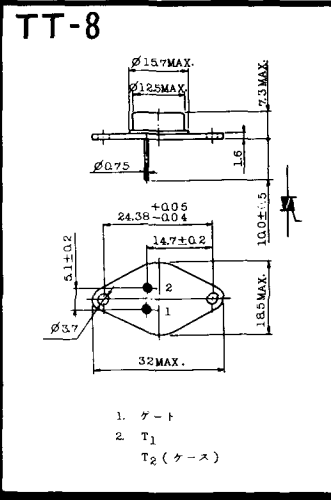
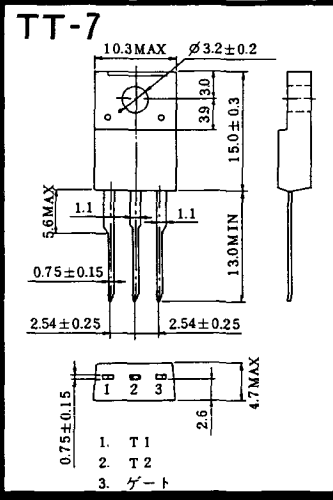
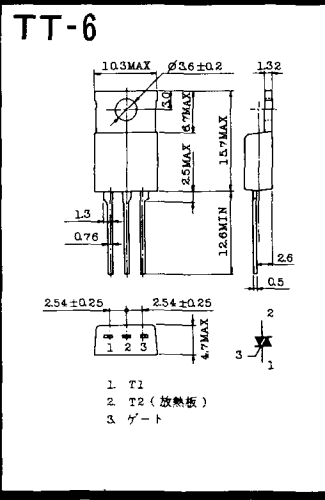
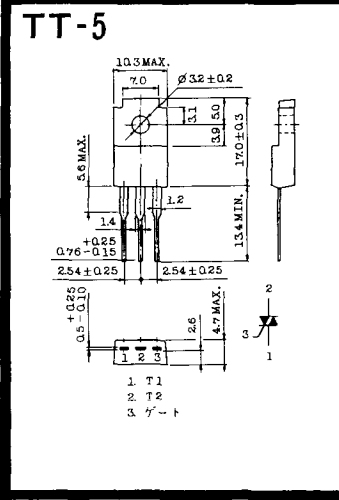
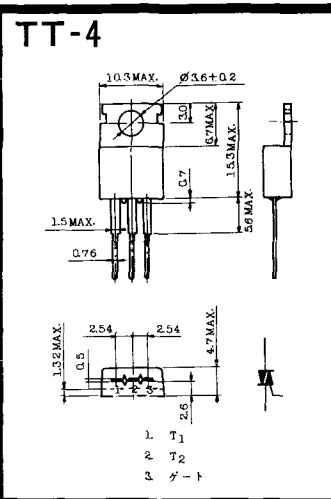
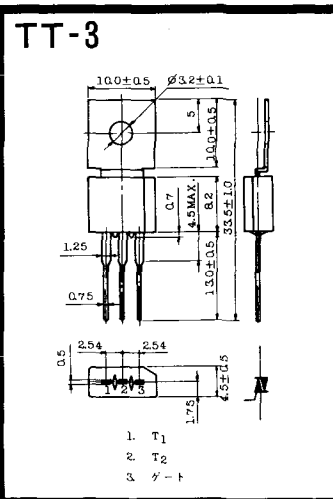
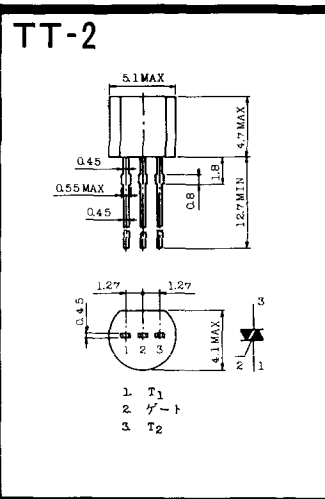
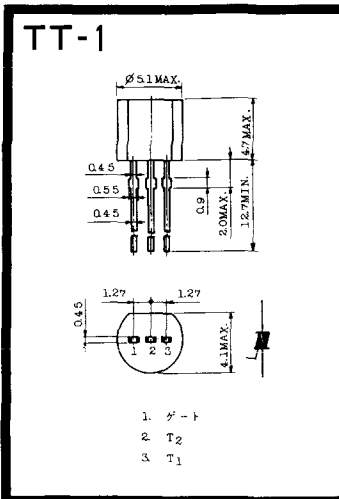


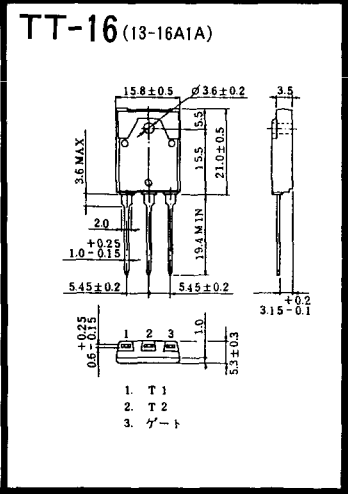
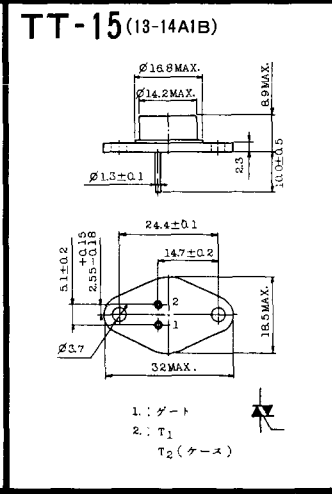
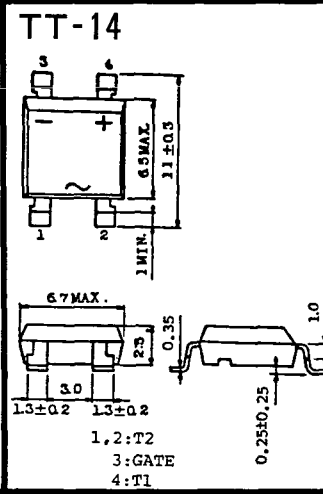
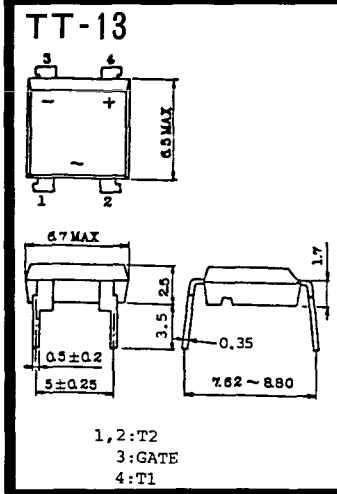
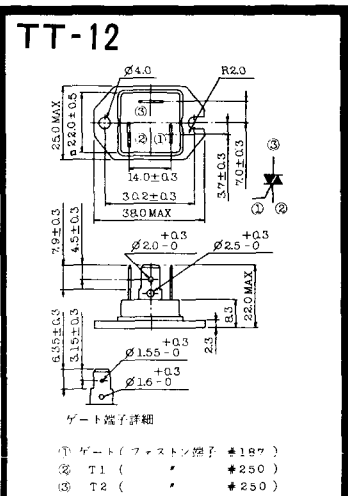
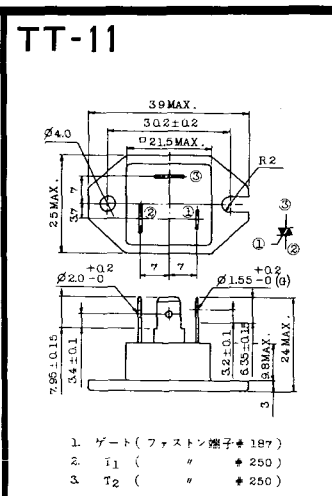
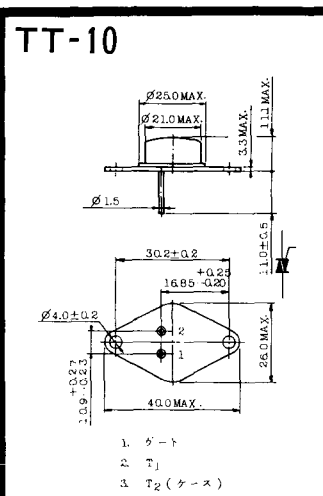
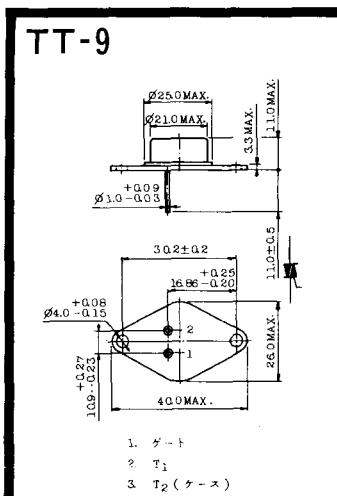
1. カソード
2. アノード
3. ゲート

T-63 (13-16A1B)



1. カソード
2. アノード
3. ゲート

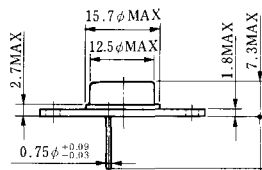






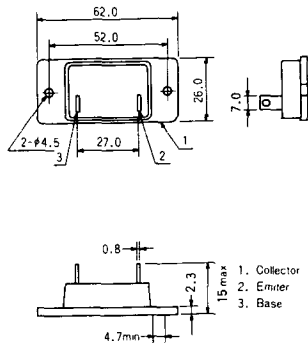
《寸法図単位：mm》

# TS-8

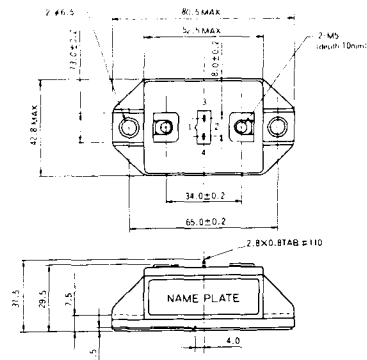


- 1. ベース
- 2. エミッタ  
コレクタ  
(ケース)

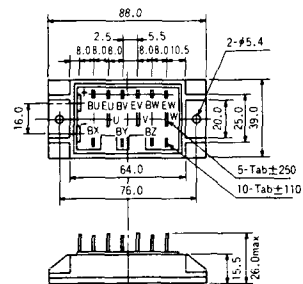
### S-62A1A



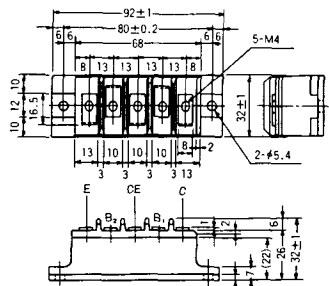
### S-80A1A



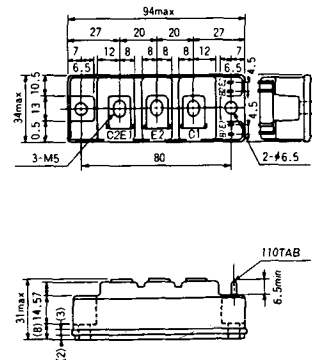
### S-88D1A



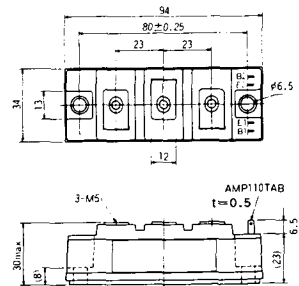
### S-92B1A



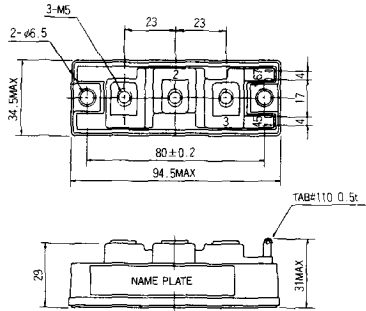
### S-94B1A



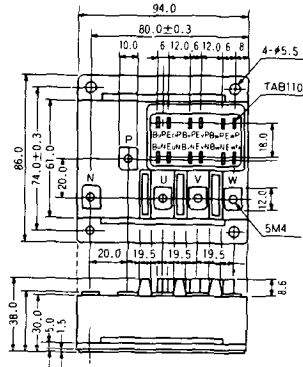
### S-94B1B



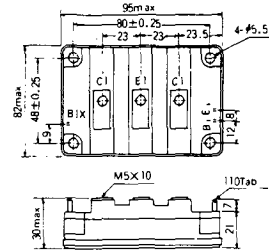
### S-94B2A



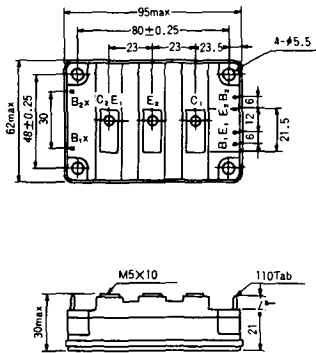
### S-94D1A



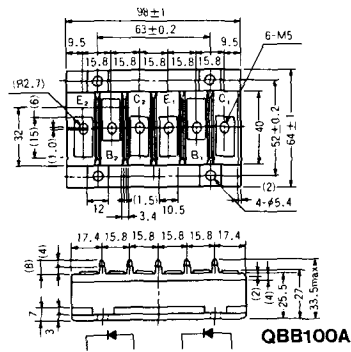
### S-95A1A



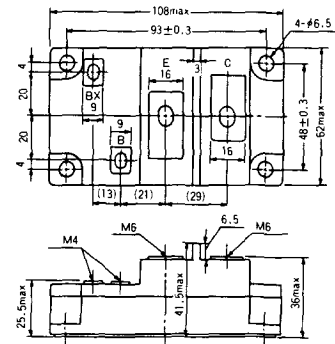
### S-95B1A



### S-98B1B

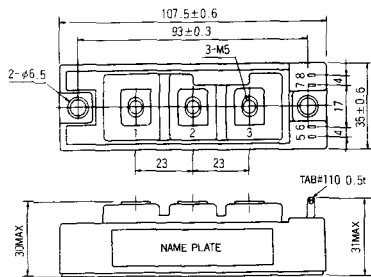


### S-108A2A

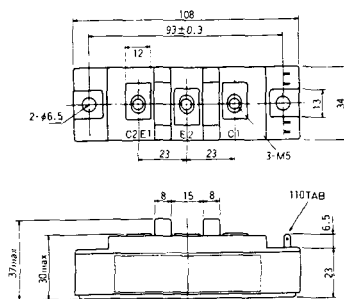




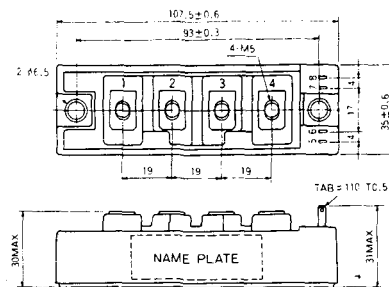
S-108B1A



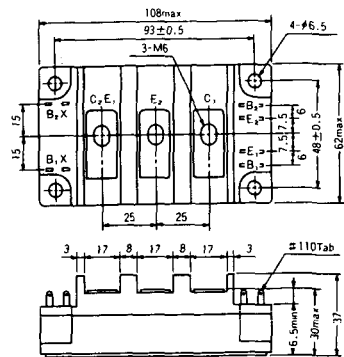
S-108B1B



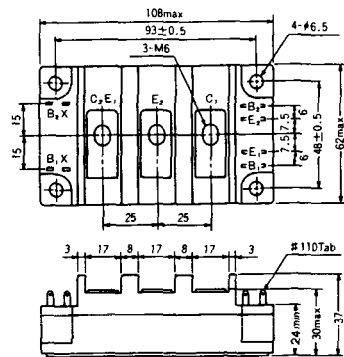
S-108B1C



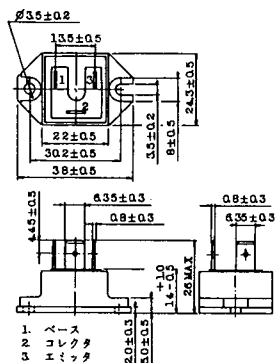
S-108B2A



S-108B2B



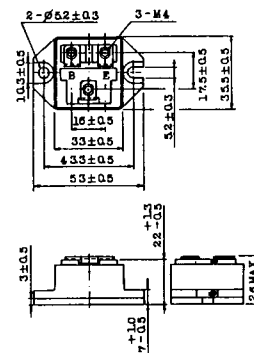
### 2-22B1A



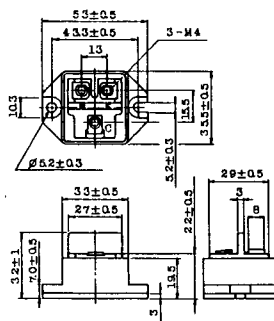
### 2-27A4A



### 2-33C1A



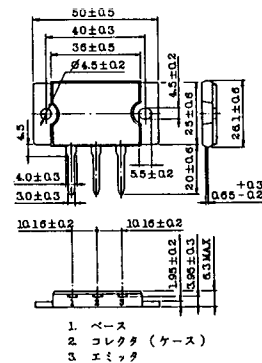
### 2-33D1A



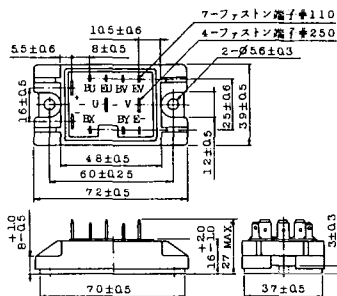
### 2-33F1A



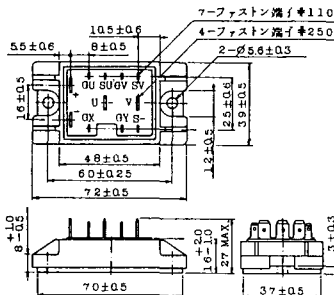
### 2-37A1A



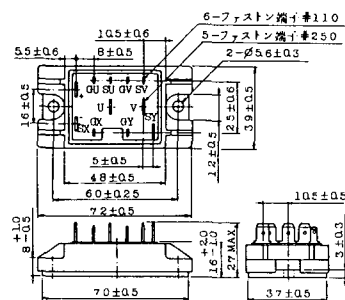
2-48A3A



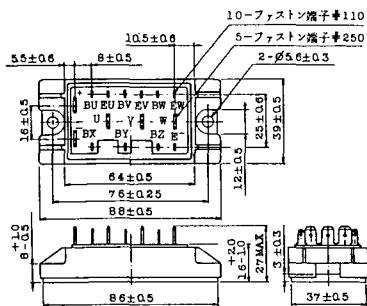
2-48A3B



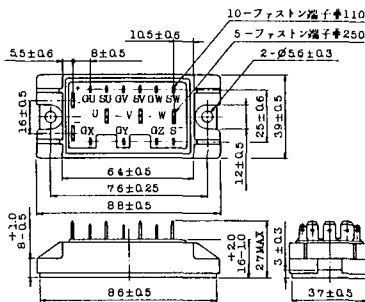
2-48A4A



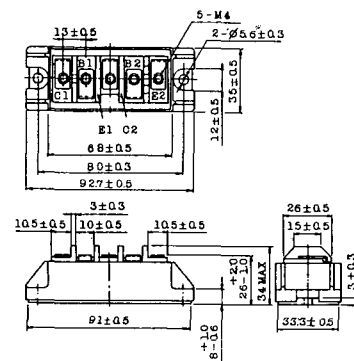
2-64A2A



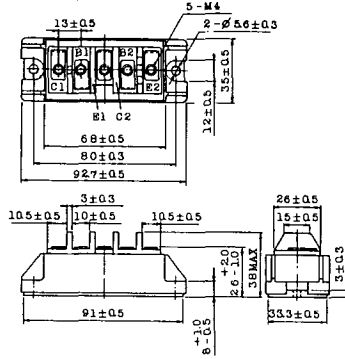
2-64A2B



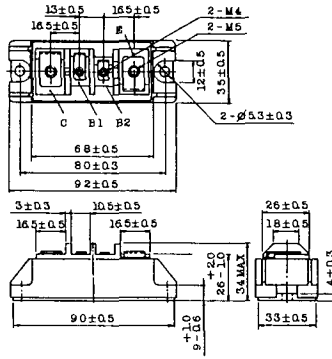
2-68A2A



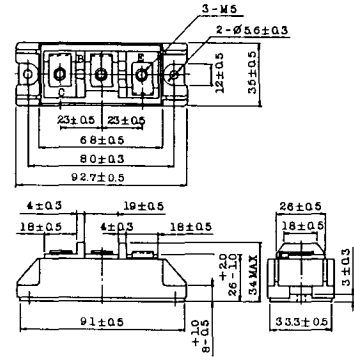
### 2-68B2A



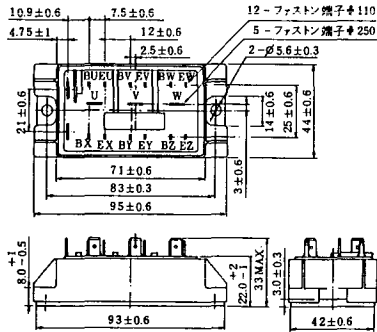
### 2-68C1A



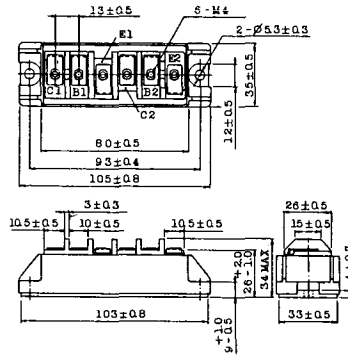
### 2-68D2A



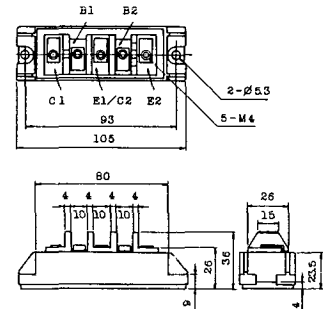
### 2-72A3A



### 2-80A1A

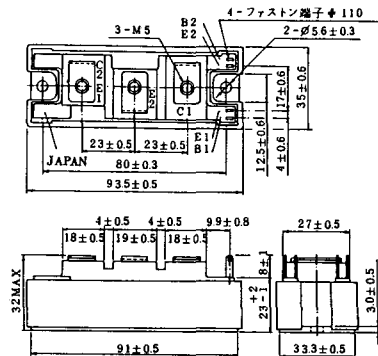


### 2-80B1A

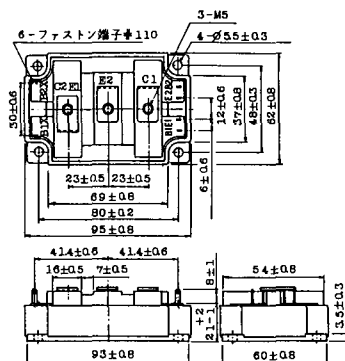




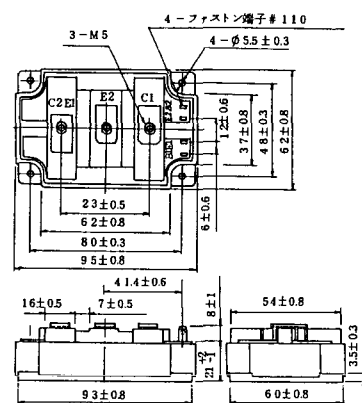
### 2-94D1A



### 2-96A3A



### 2-96A4A



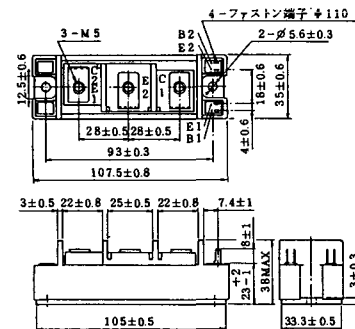
### 2-98B1A



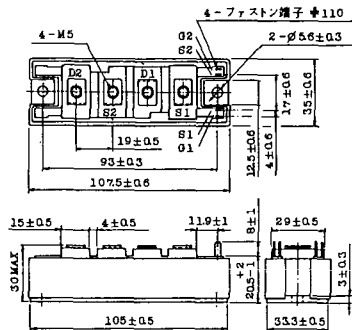
### 2-98C2A



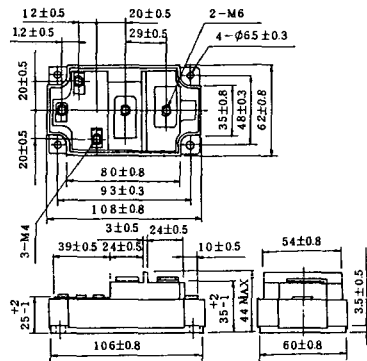
### 2-108A2A



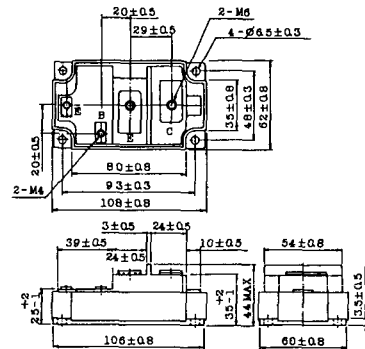
### 2-108B1A



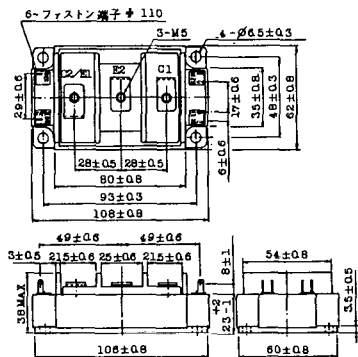
### 2-109A3A



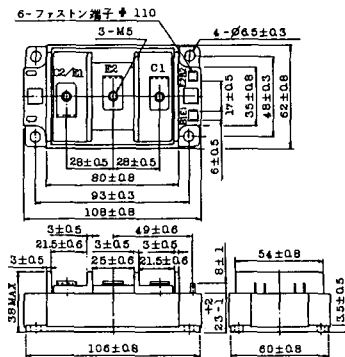
### 2-109A4A



### 2-109B3A

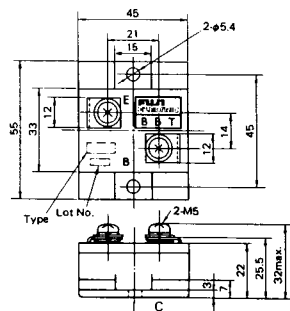


### 2-109B4A



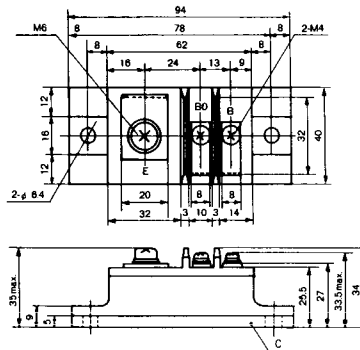
### BBT-II

BBTII  
1D200A-020



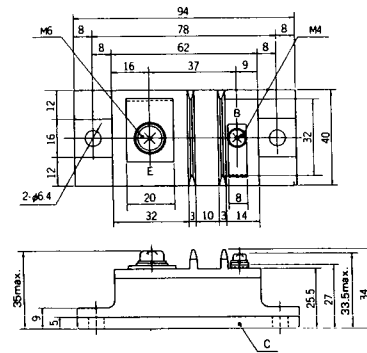
### BBT-III

BBTIII  
ETN31-055  
ETM36-030  
ETN36-030  
ETN35-030



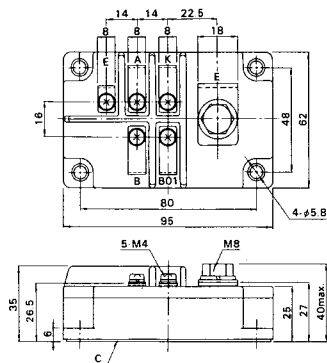
### BBT-III

BBTIII  
ETN01-055  
ET1257



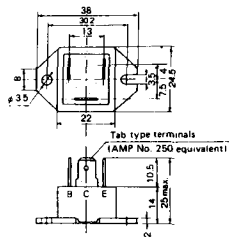
### BBT-IV

BBTIV  
1D500A-030

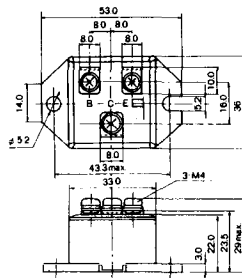




M-101



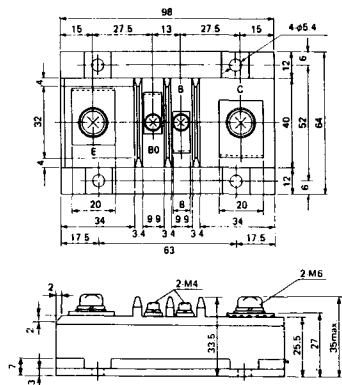
M-102



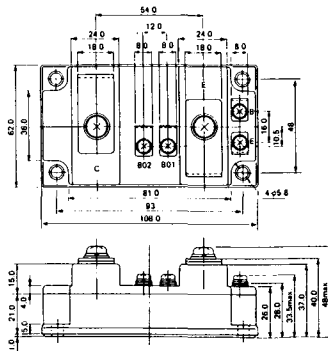
M-103



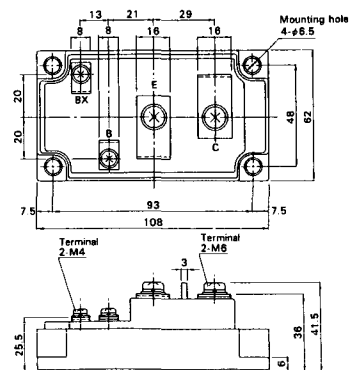
M-104



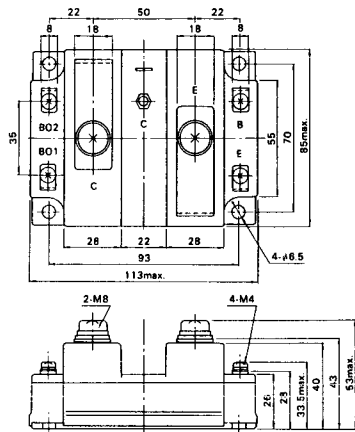
M-105



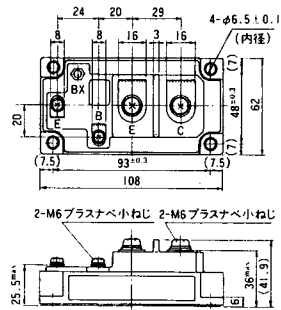
M-106



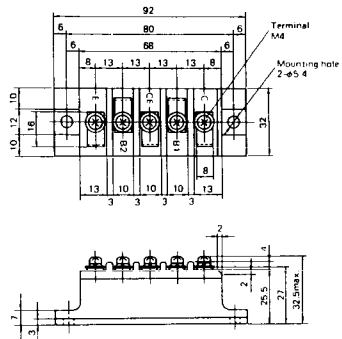
### M-107



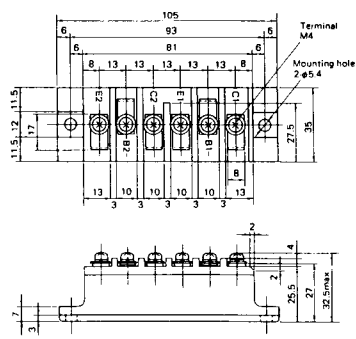
### M-116



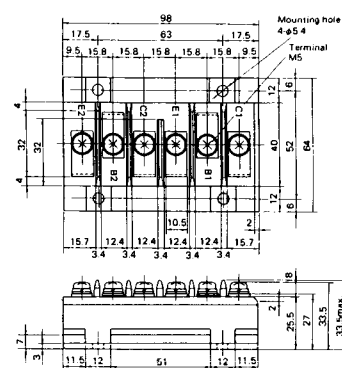
### M-201



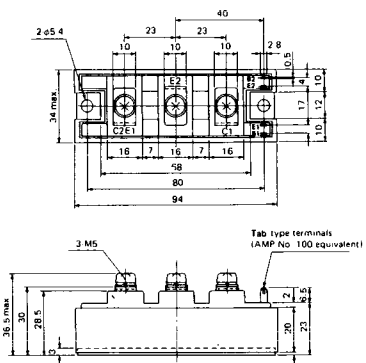
### M-202



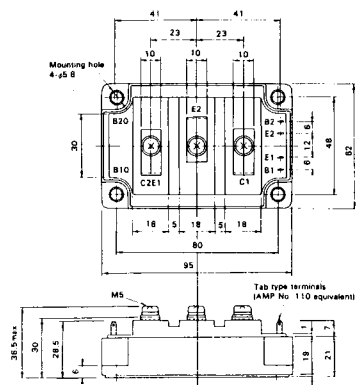
### M-203



### M-204



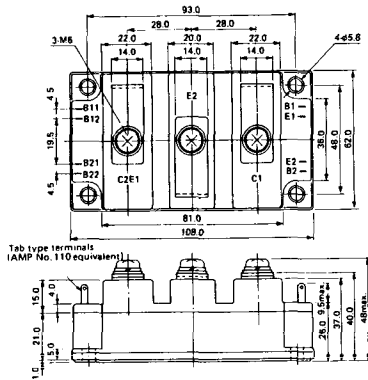
### M-205



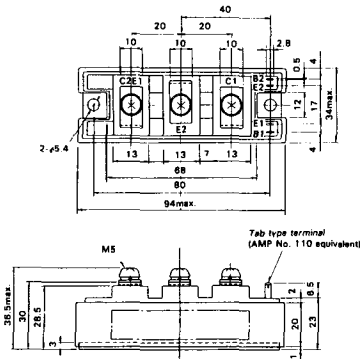
### M-206



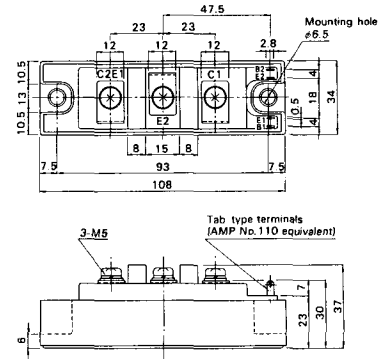
### M-207



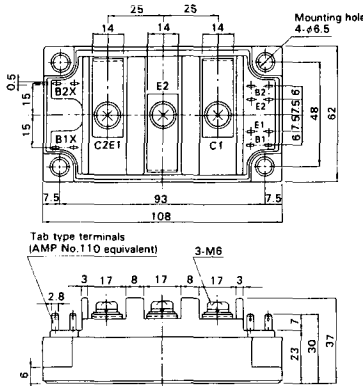
### M-208



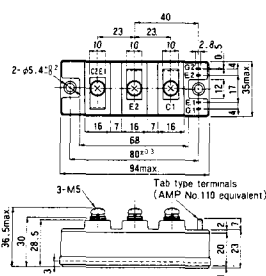
### M-209



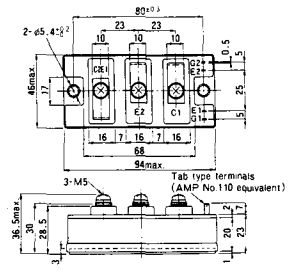
### M-210



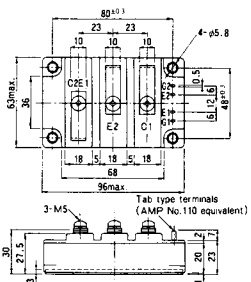
### M-211



### M-212

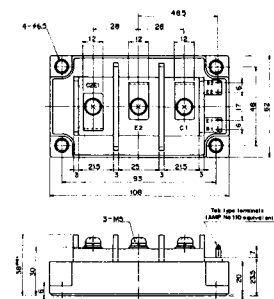


M-213

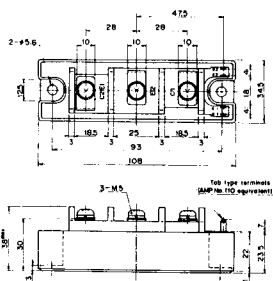


M-214

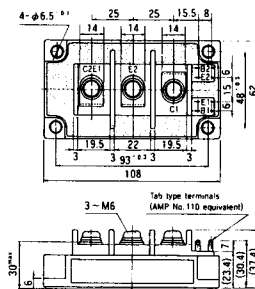
M-215



M-216



M-217



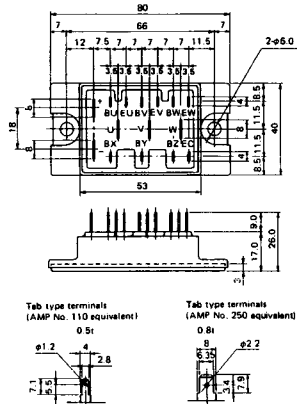
M-218



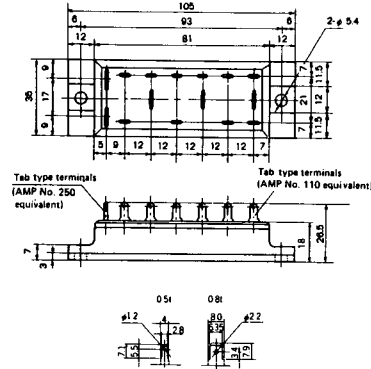
M-219



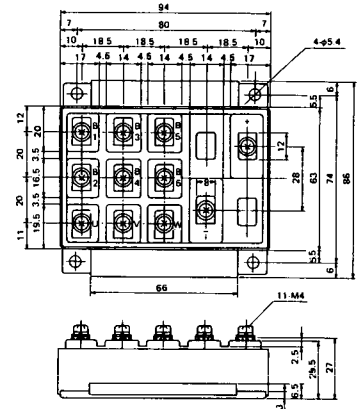
M-601



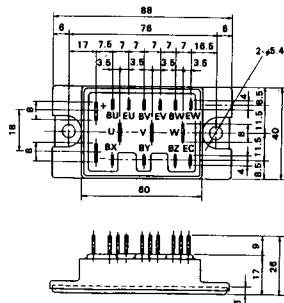
M-602



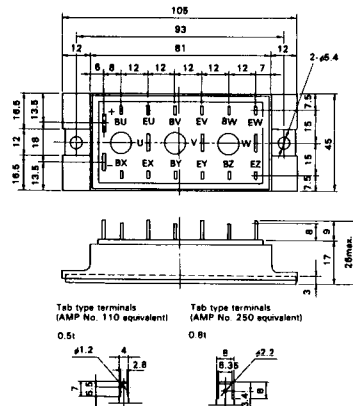
M-603



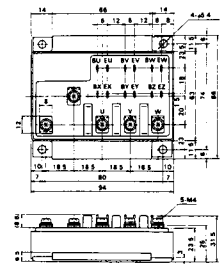
M-604



M-605



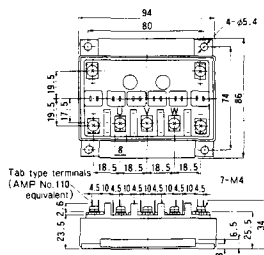
M-606



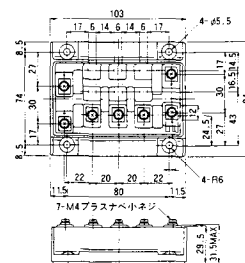
M-607



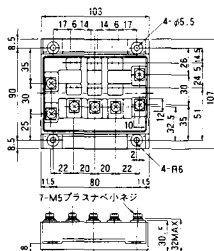
M-608



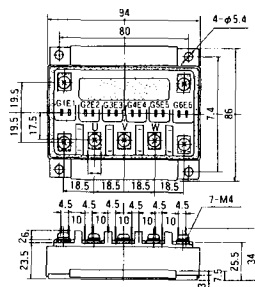
M-609



M-610

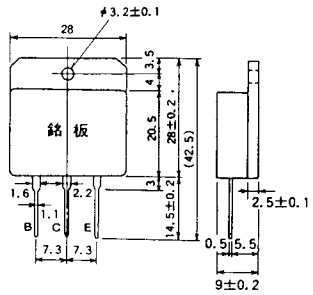


M-616

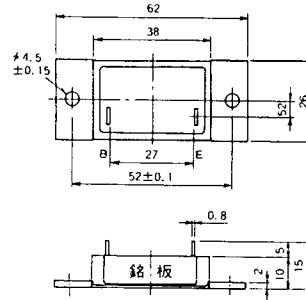




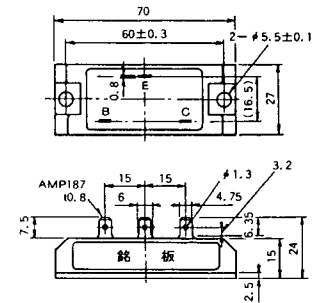
M-1A1A



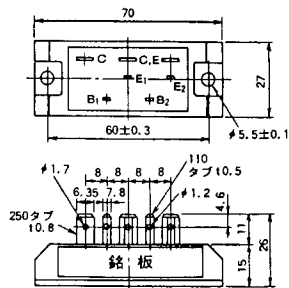
M-2A1A



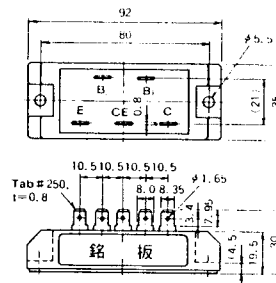
M-2B1A



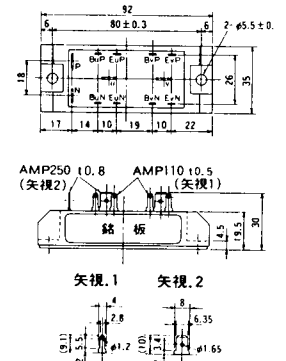
M-2B2A



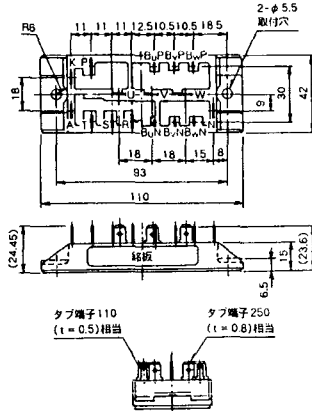
M-2C2A



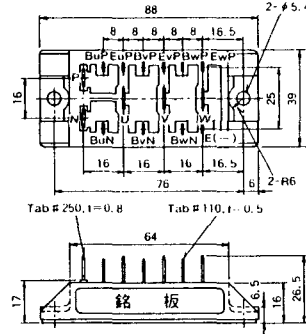
M-2D4A



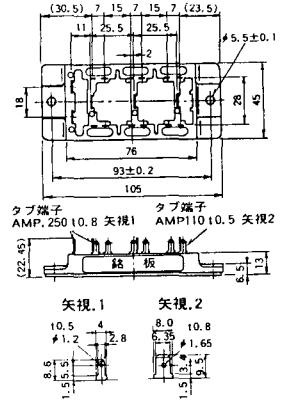
### M-2E6A



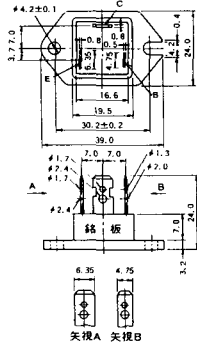
### M-2F6A



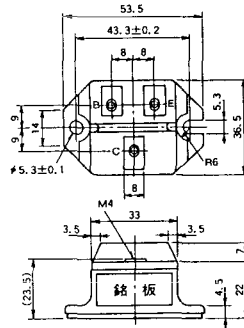
### M-2G6A



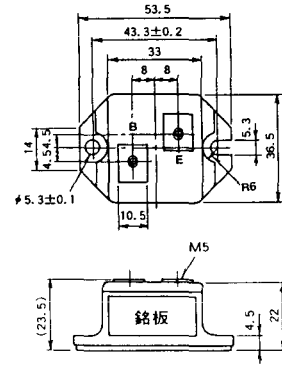
### M-3A1A



### M-3B1A



### M-3B1B



M-3C1A



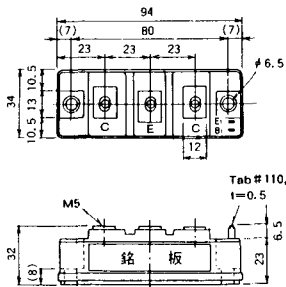
M-3D6A



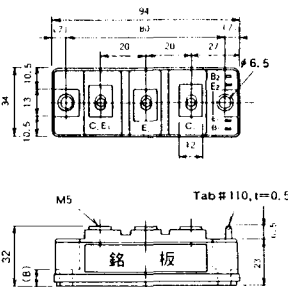
M-3E6A



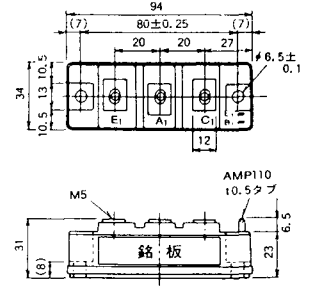
M-4A1A



M-4A2A



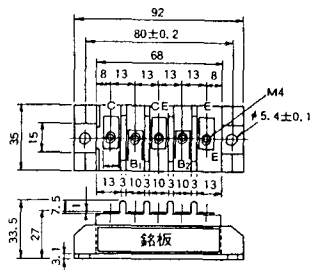
M-4A1B



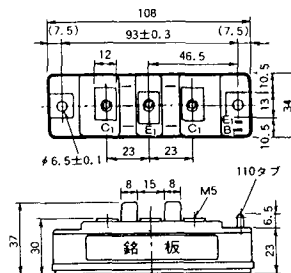
M-4A2B



M-4B2A



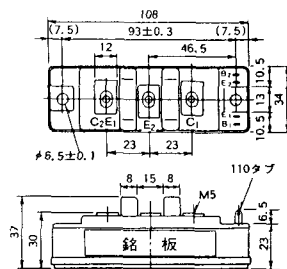
M-5A1A



M-5A1B



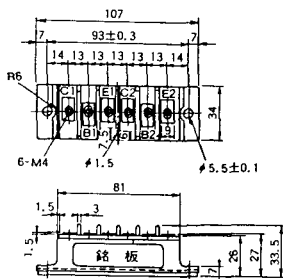
M-5A2A



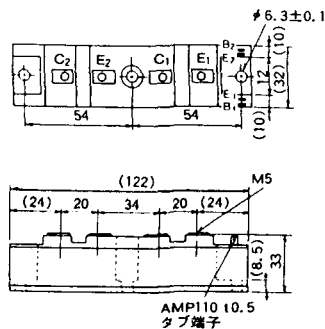
M-5B2A



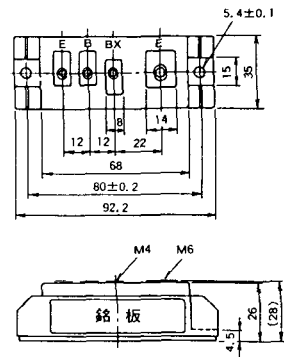
M-5C2A



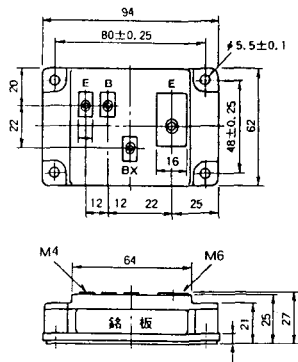
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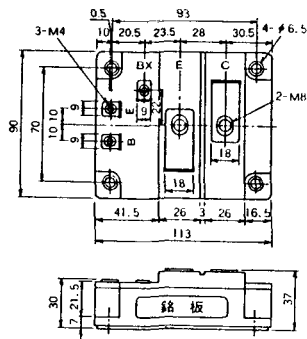
M-6A1A



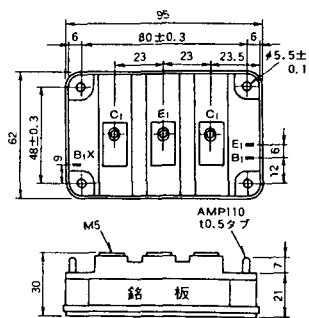
M-7A1A



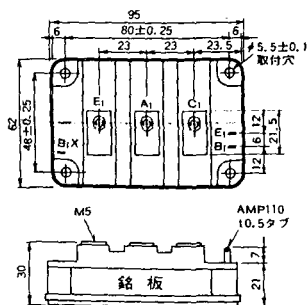
M-7B1A



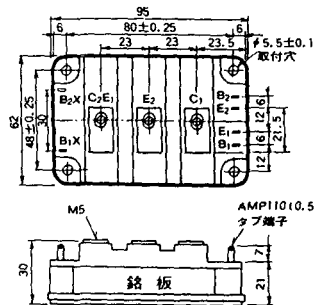
M-8A1A



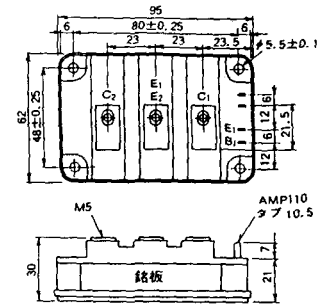
M-8A1B



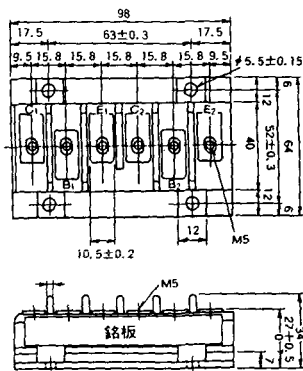
M-8A2A



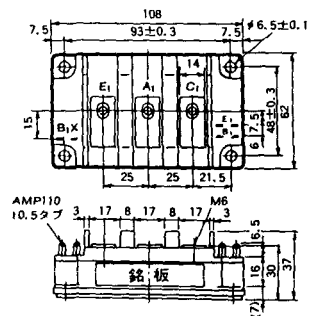
M-8A2B



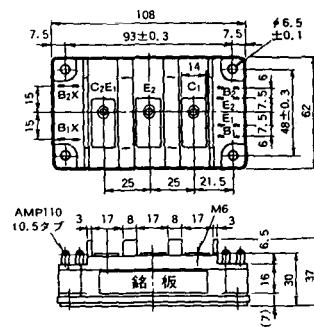
M-8B2A



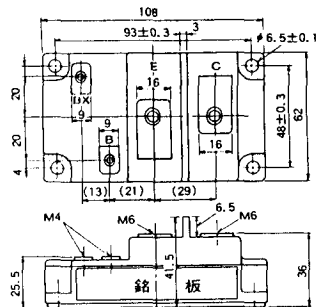
M-9A1A



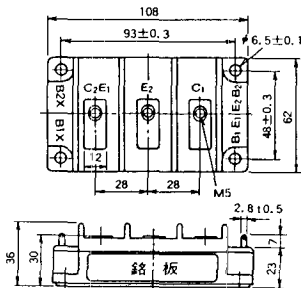
M-9A2A



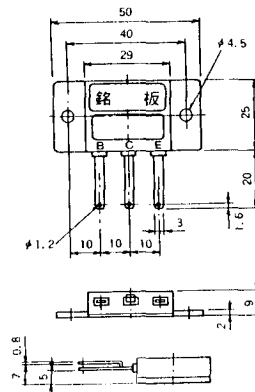
### M-9B1A



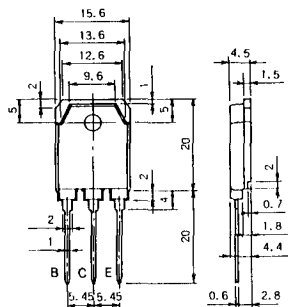
### M-9C2A



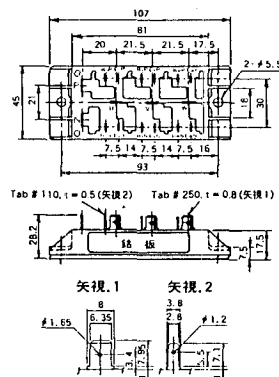
### M-1A1B



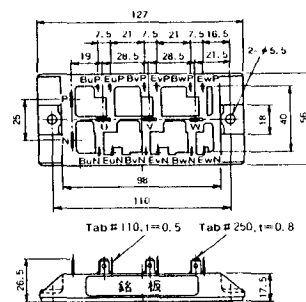
### M-1A1C



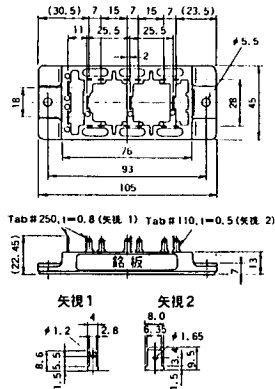
### M-2E6B



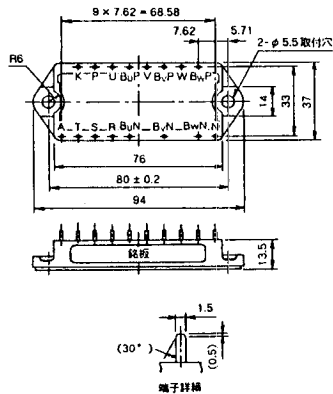
### M-2E6C



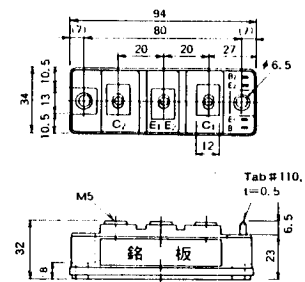
### M-2G6B



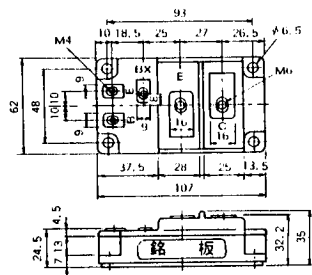
### M-3D6B



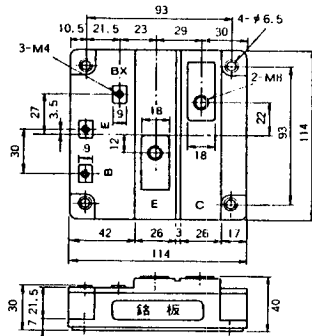
### M-4A2C



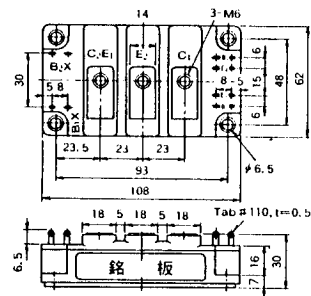
### M-7A1B



### M-7C1A



### M-8A2C

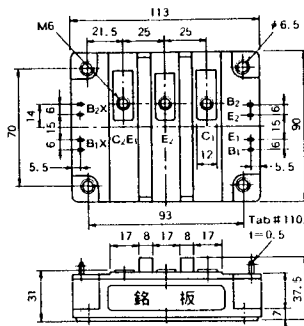




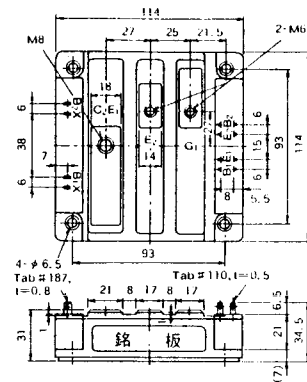
M-10A2A



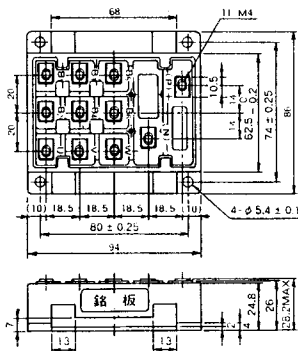
M-10A2B



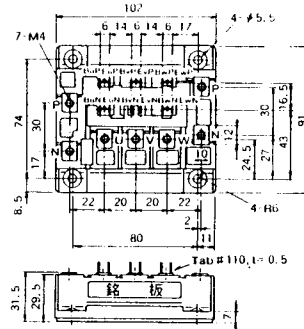
M-11A2A



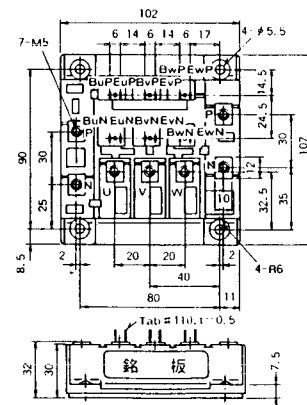
M-12A6A



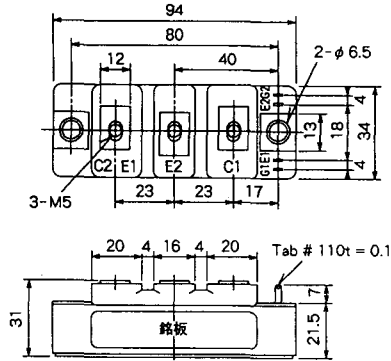
M-12B6A



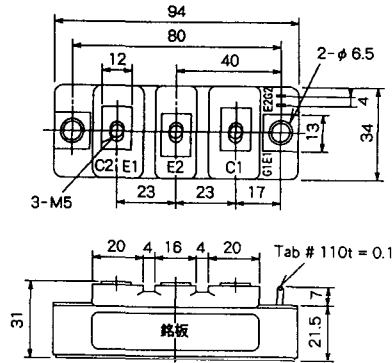
M-12B6B



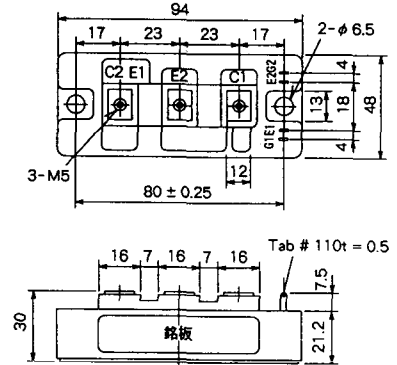
M-4A2D



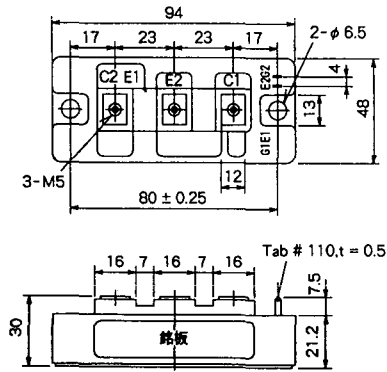
M-4A2E



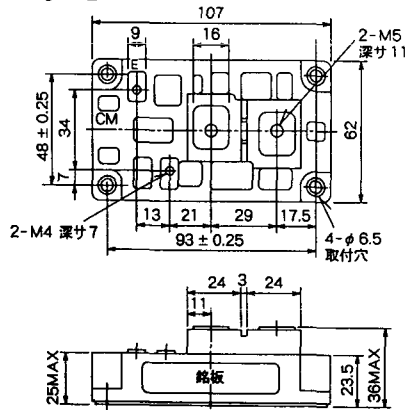
M-4C2A



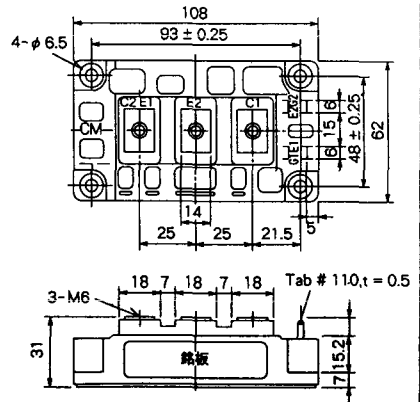
M-4C2B



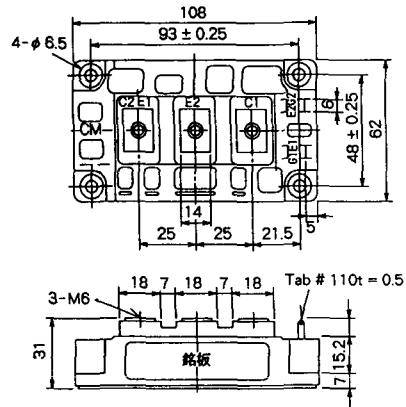
M-9B1C



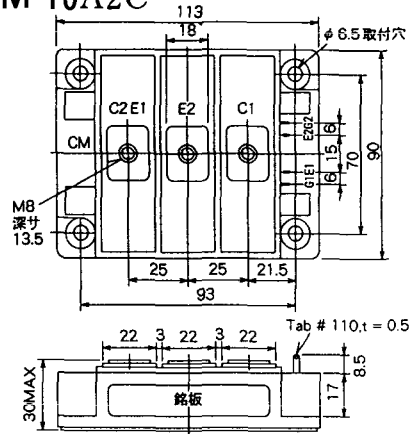
M-9D2A



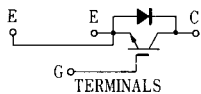
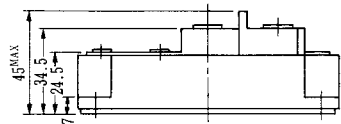
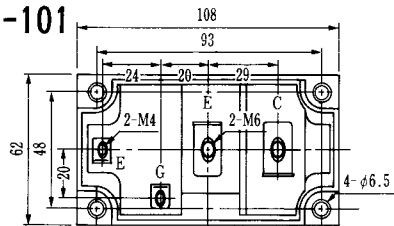
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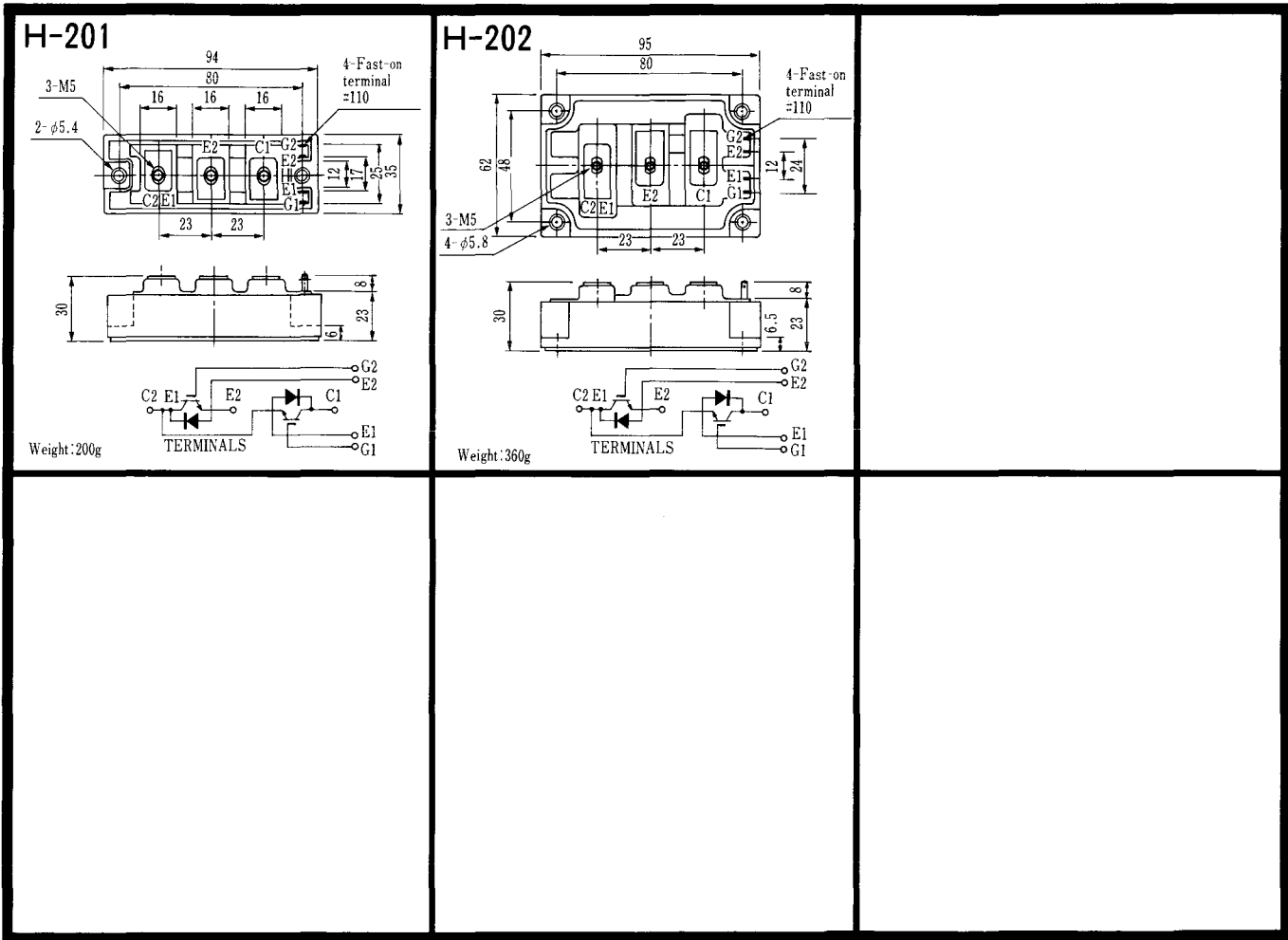
### M-10A2C



H-101



Weight :480g



### LF-J



### LF-K



