

THYRISTOR MODULE

150A / 1200V to 1600V

PAT15012 PAT15016

PAH15012 PAH15016

FEATURES

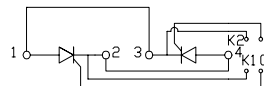
- * Isolated Base
- * Dual Thyristors or Thyristor and Diode Anti-Parallel Circuit
- * High Surge Capability
- * UL Recognized, File No. E187184

TYPICAL APPLICATIONS

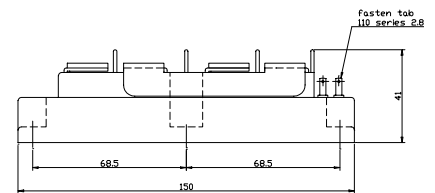
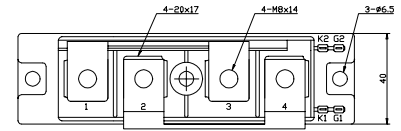
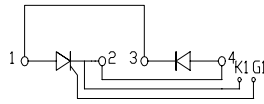
- * Rectified For General Use

OUTLINE DRAWING

PAT



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Maximum Ratings

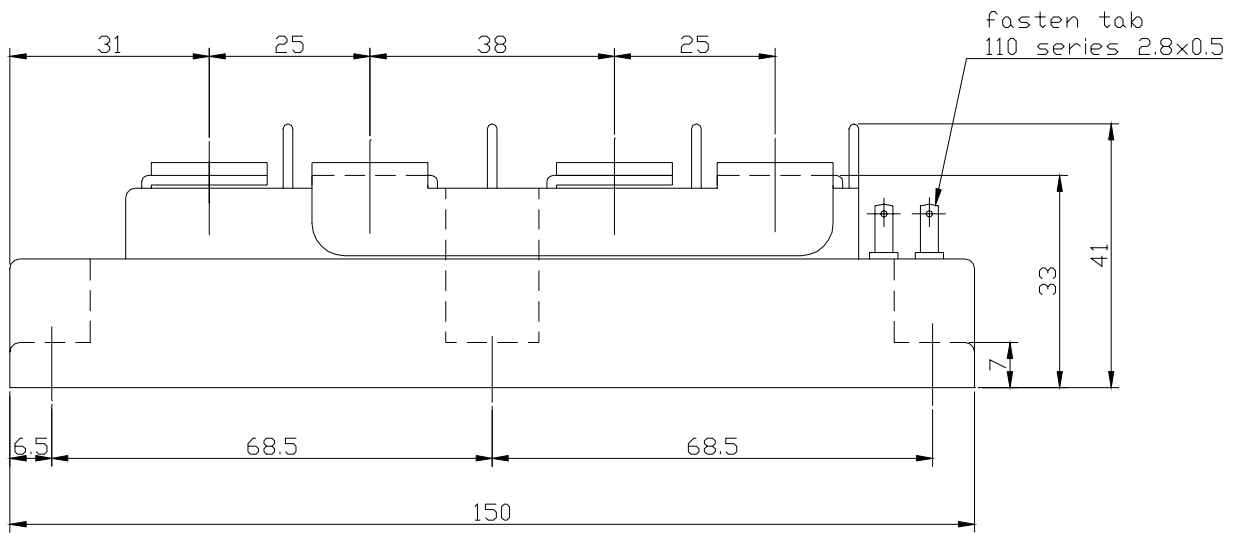
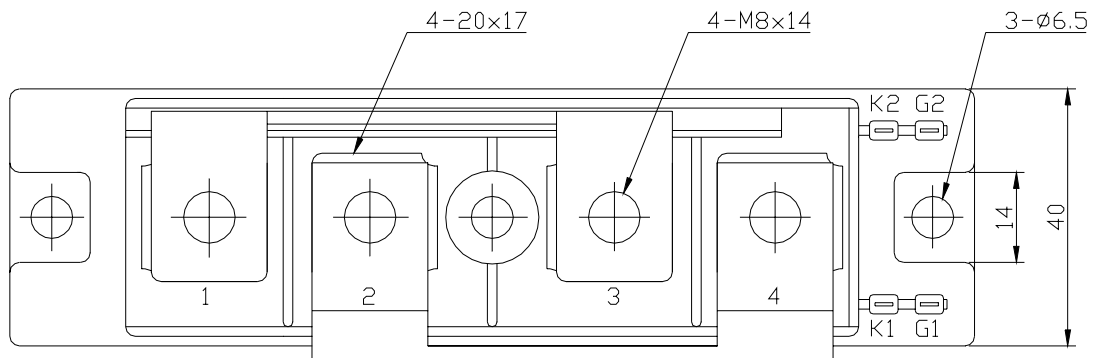
Approx Net Weight:500g

Parameter	Symbol	Grade		Unit
		PAT/PAH15012	PAT/PAH15016	
Repetitive Peak Off-State Voltage	V_{DRM}	1200	1600	V
Non Repetitive Peak Off-State Voltage	V_{DSM}	1300	1700	V
Repetitive Peak Reverse Voltage	V_{RRM}	1200	1600	V
Non Repetitive Peak Reverse Voltage	V_{RSM}	1300	1700	V

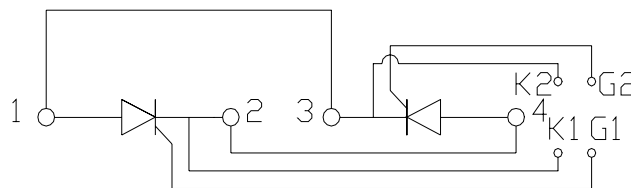
Parameter		Conditions	Max Rated Value	Unit	
Average Rectified Output Current	$I_{O(AV)}$	50Hz Half Sine Wave condition $T_c=73^\circ\text{C}$	150	A	
RMS On-State Current	$I_{T(RMS)}$		235	A	
Surge On-State Current	I_{TSM}	50 Hz Half Sine Wave, 1Pulse Non-Repetitive	3200	A	
I Squared t	I^2t	2msec to 10msec	51200	A^2s	
Critical Rate of Turned-On Current	di/dt	$V_D=2/3V_{DRM}$, $I_{TM}=2 \cdot I_o$, $T_j=125^\circ\text{C}$ $I_G=300\text{mA}$, $di/dt=0.2\text{A}/\mu\text{s}$	100	$\text{A}/\mu\text{s}$	
Peak Gate Power	P_{GM}		5	W	
Average Gate Power	$P_{G(AV)}$		1	W	
Peak Gate Current	I_{GM}		2	A	
Peak Gate Voltage	V_{GM}		10	V	
Peak Gate Reverse Voltage	V_{RGM}		5	V	
Operating Junction Temperature Range	T_{jw}		-40 to +125	$^\circ\text{C}$	
Storage Temperature Range	T_{stg}		-40 to +125	$^\circ\text{C}$	
Isolation Voltage	Viso	Base Plate to Terminals, AC1min	2500	V	
Mounting torque	Case mounting	Ftor	M6 Screw	2.5 to 3.5	N.m
	Terminals		M8 Screw	9.0 to 10.0	

Value per 1 Arm

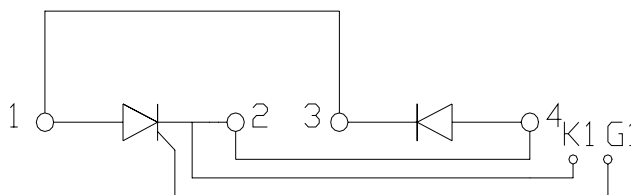
PAT/PAH1501x OUTLINE DRAWING (Dimensions in mm)



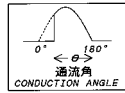
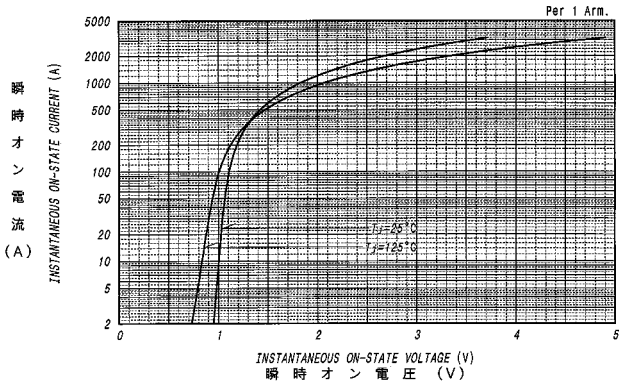
PAT



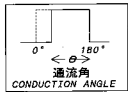
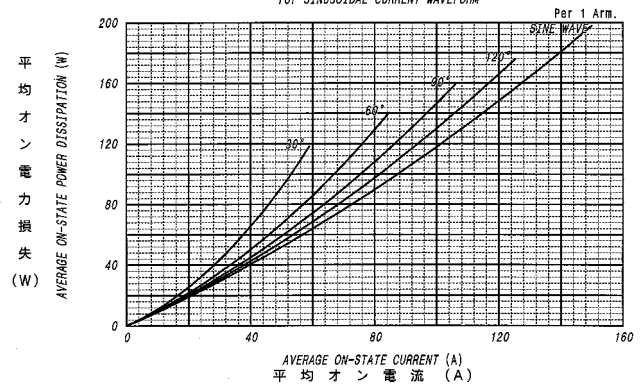
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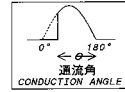
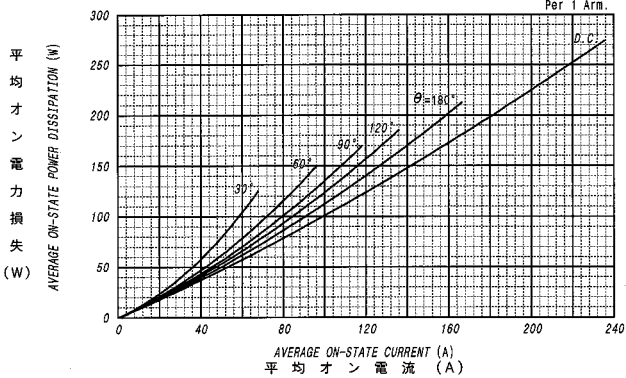
オン電圧特性
ON-STATE CURRENT VS. VOLTAGE



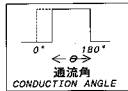
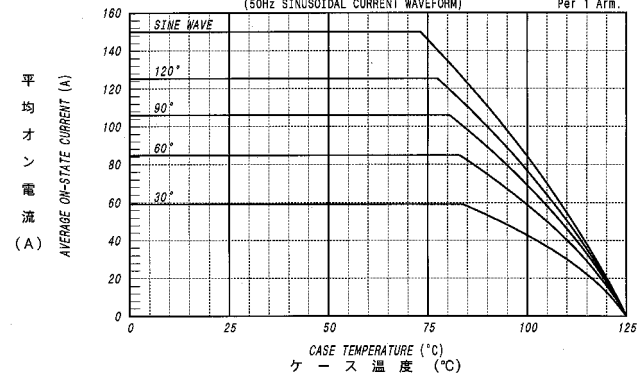
平均オン電力損失特性
AVERAGE ON-STATE POWER DISSIPATION



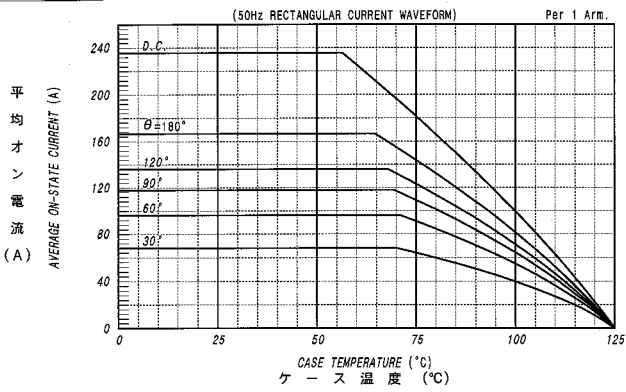
平均オン電力損失特性
AVERAGE ON-STATE POWER DISSIPATION



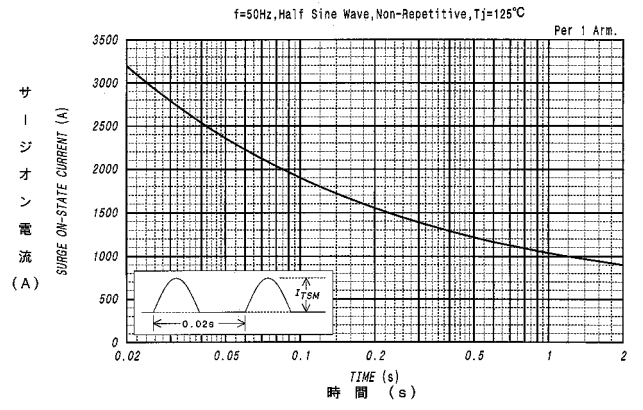
平均オン電流 - ケース温度定格
AVERAGE ON-STATE CURRENT VS. CASE TEMPERATURE



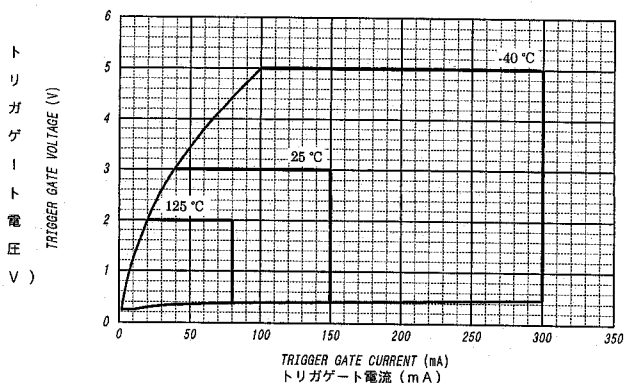
平均オン電流 - ケース温度定格
AVERAGE ON-STATE CURRENT VS. CASE TEMPERATURE



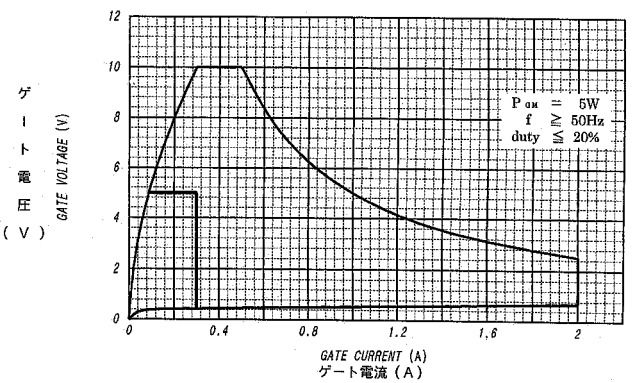
サージオン電流定格
SURGE CURRENT RATINGS



ゲート特性
GATE CHARACTERISTICS



ゲート定格
GATE RATINGS



過渡熱抵抗特性
MAXIMUM TRANSIENT THERMAL IMPEDANCE

Junction to Case

Per 1 Arm.

