

# 2SA770 2SA771

## Silicon PNP Epitaxial Planar

☆ Complement to types 2SC1985 thru 2SC1986

### Application Example :

General and Industrial Purpose

● Outline Drawing 1 .....MT-25(TO220)

● Test Circuit.....①

### Absolute Maximum Ratings

Symbol	2SA770	2SA771	Unit
V <sub>CB0</sub>	-60	-80	V
V <sub>CE0</sub>	-60	-80	V
V <sub>EB0</sub>	-6		V
I <sub>C</sub>	-6		A
I <sub>B</sub>	-3		A
P <sub>C</sub>	40 (T <sub>FL</sub> = 25°C)		W
T <sub>J</sub>	150		°C
T <sub>stg</sub>	-55~+150		°C

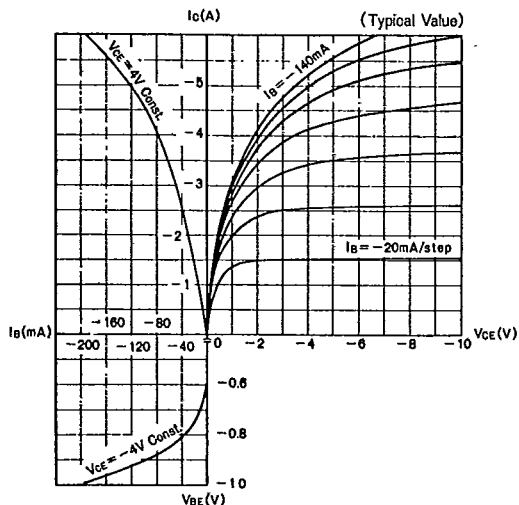
### Electrical Characteristics

Symbol	Conditions	2SA770	2SA771	Unit
I <sub>CB0</sub>	V <sub>CB</sub> =	-1.0max	-1.0max	mA
V <sub>CB0</sub>	I <sub>C</sub> =	-60	-80	V
I <sub>EB0</sub>	V <sub>EB</sub> = -6V		-1.0max	mA
V <sub>BE(sat)</sub>	I <sub>C</sub> = -25mA	-60min	-80min	V
h <sub>FE</sub>	V <sub>CE</sub> = -4V, I <sub>C</sub> = -1A		40min	
V <sub>CE(sat)</sub>	I <sub>C</sub> = -3A, I <sub>B</sub> = -0.3A		-1.0max	V
f <sub>T</sub>	V <sub>CE</sub> = -12V, I <sub>E</sub> = 0.5A		10typ	MHz

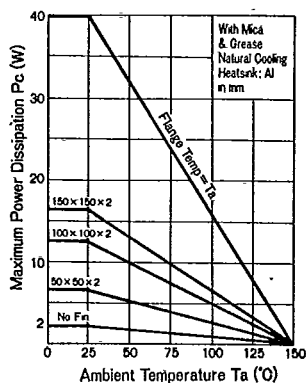
### Typical Switching Characteristics (Emitter Common)

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>B2</sub> (V)	I <sub>B1</sub> (mA)	I <sub>B2</sub> (mA)	t <sub>r</sub> (μs)	t <sub>stg</sub> (μs)	t <sub>f</sub> (μs)
-9	3	-3	5	-400	400	0.9typ	1.0typ	0.1typ

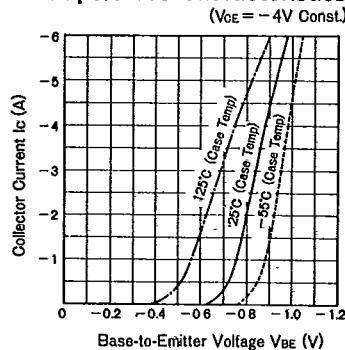
### Common Emitter Characteristics



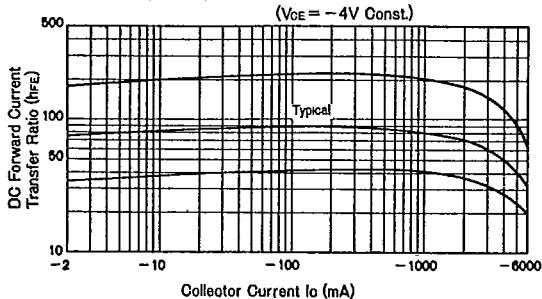
### Power Derating



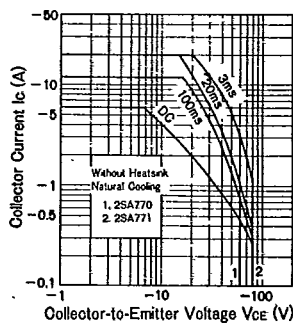
### Temperature Characteristics



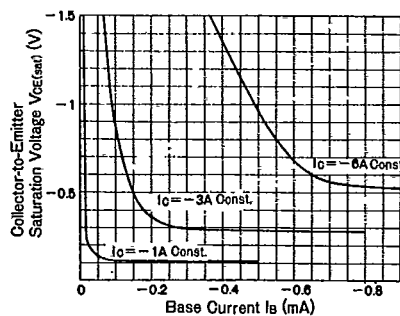
### DC Current Gain Characteristics



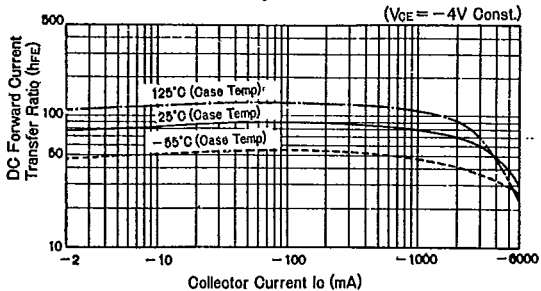
### Maximum Areas For Safe Operation (ASO) (Single Pulse)



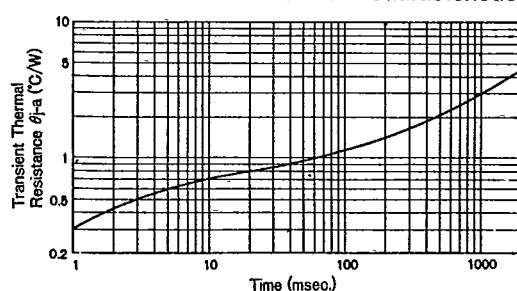
### Collector-to-Emitter Saturation Characteristics (Typical Value)



### DC Current Gain Temperature Characteristics



### Transient Thermal Resistance Characteristics



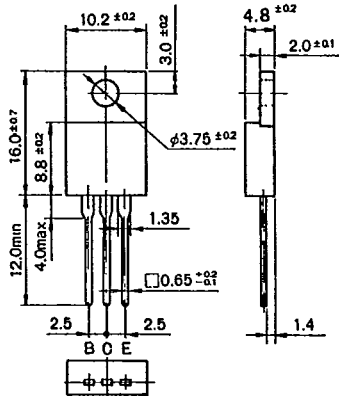
# Outline Drawings/Accessories

## Outline Drawing

- Flammability: UL94V-0 or equivalent
- Unit: in mm

### Outline Drawings 1

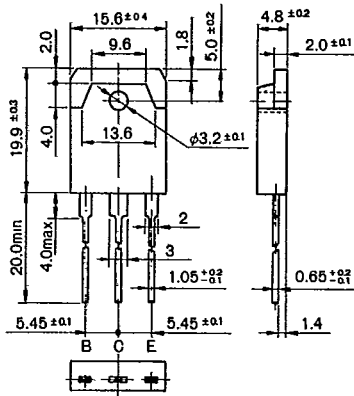
MT-25(TO220)



Weight: Approx. 2.6 g

### Outline Drawings 2

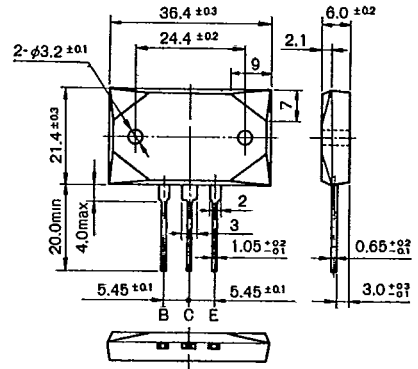
MT-100(TO3P)



Weight: Approx. 6.0 g

### Outline Drawings 3

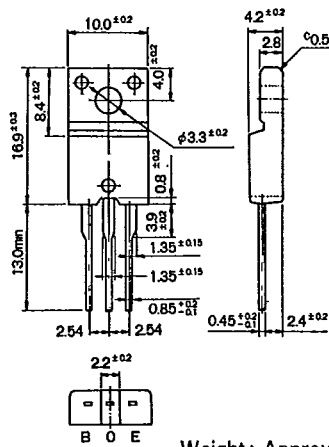
MT-200



Weight: Approx. 18.4 g

### Outline Drawings 4

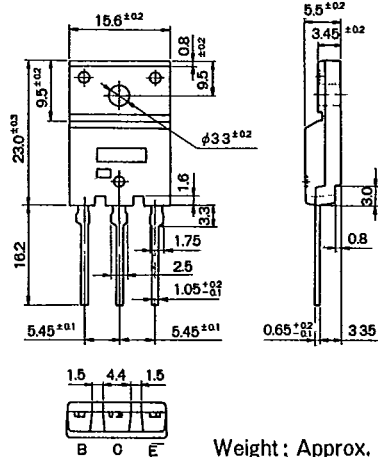
FM20



Weight: Approx. 2.0 g

### Outline Drawings 5

FM100



Weight: Approx. 6.5 g

## Accessories

☆Sanken Transistors do not include accessories. Accessories may be attached at a cost if requested.

● Insulator : Mica,  $t = 0.06^{+0.045}_{-0.005}$  mm

Type : MT-25 Mica (10)      Type : MT-100 Mica (14)      Type : MT-200 Mica (9)

● Insulation Bush for MT-25(TO220)

Technical drawings of accessories. The mica insulators are shown in top view with dimensions: MT-25 Mica (width 19.4 ± 0.1, height 14.0 min, hole diameter φ3.76 ± 0.1, hole offset 5.0 ± 0.1, R0.5), MT-100 Mica (width 24.0 ± 0.2, height 20.0 ± 0.2, hole diameter φ3.2 ± 0.1, hole offset 7.0 ± 0.1, R0.5), and MT-200 Mica (width 39.0 ± 0.1, height 24.0 ± 0.1, hole diameter φ3.2 ± 0.1, hole offset 24.38 ± 0.1, R0.5). The insulation bush for MT-25(TO220) is shown in side view with dimensions: width 6.0 ± 0.2, height 3.7 ± 0.1, hole diameter φ3.1, and lead diameter 2.5 ± 0.2.