

# 2SC4386

## Silicon NPN Triple Diffused Planar

T-33-13

☆ Complement to type 2SA1671

**Application Example:**  
Audio and General Purpose

● Outline Drawing 5 .....FM100

### Absolute Maximum Ratings

(Ta=25°C)

Symbol	2SC4386	Unit
V <sub>CB0</sub>	160	V
V <sub>CE0</sub>	120	V
V <sub>EB0</sub>	6	V
I <sub>C</sub>	8	A
I <sub>B</sub>	3	A
P <sub>C</sub>	75 (T <sub>C</sub> = 25°C)	W
T <sub>j</sub>	150	°C
T <sub>stg</sub>	-55 ~ +150	°C

### Electrical Characteristics

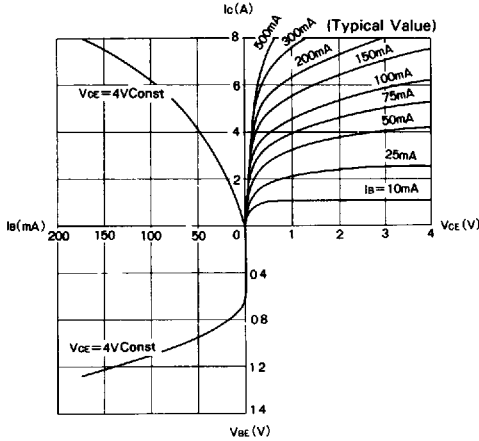
(Ta=25°C)

Symbol	Conditions	2SC4386	Unit
I <sub>CB0</sub>	V <sub>CB</sub> =160V	10max	μA
I <sub>EB0</sub>	V <sub>EB</sub> =6V	10max	μA
V <sub>IBRICE0</sub>	I <sub>C</sub> = 50mA	120min	V
h <sub>FE</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =3A	50min	
V <sub>CE(sat)</sub>	I <sub>C</sub> = 3A, I <sub>B</sub> =0.3A	1.5max	V
f <sub>T</sub>	V <sub>CE</sub> =12V, I <sub>E</sub> =-0.5A	20typ	MHz

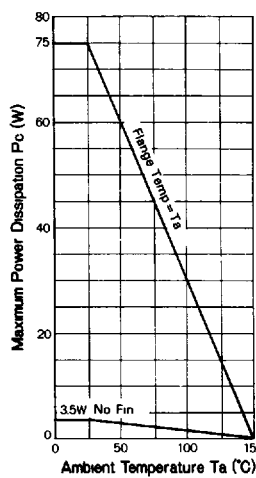
### Typical Switching Characteristics (Common Emitter)

V <sub>CC</sub> (V)	R <sub>L</sub> (Ω)	I <sub>C</sub> (A)	V <sub>BB1</sub> (V)	V <sub>BB2</sub> (V)	I <sub>B1</sub> (A)	I <sub>B2</sub> (A)	t <sub>on</sub> (μs)	t <sub>stg</sub> (μs)	t <sub>f</sub> (μs)
40	10	4	10	-5	0.4	-0.4	0.3typ	3.4typ	0.4typ

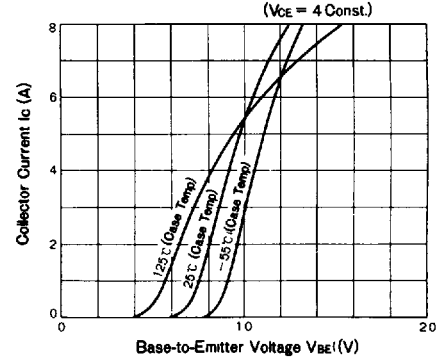
### Common Emitter Characteristics



### Power Derating

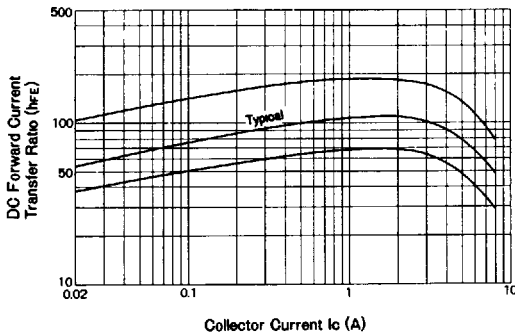


### Temperature Characteristics

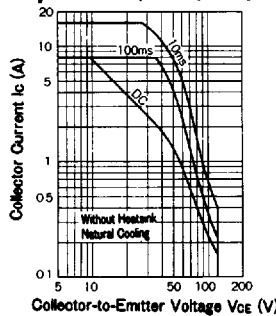


### DC Current Gain Characteristics

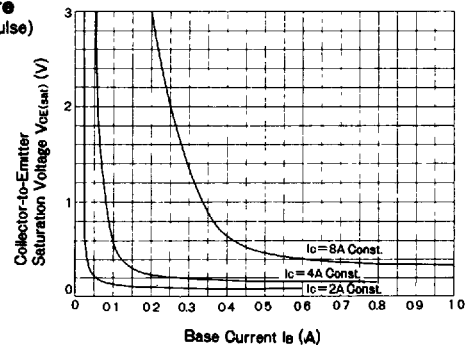
(V<sub>CE</sub> = 4V Const.)



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

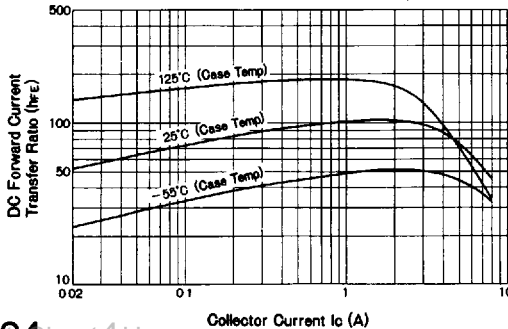


### V<sub>CE(sat)</sub> - I<sub>B</sub> Characteristics (Typical Value)



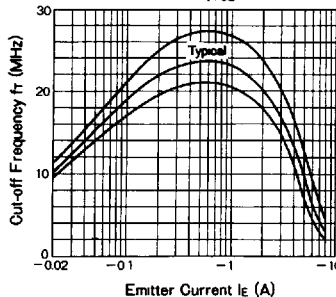
### DC Current Gain Temperature Characteristics

(V<sub>CE</sub> = 4V Const.)

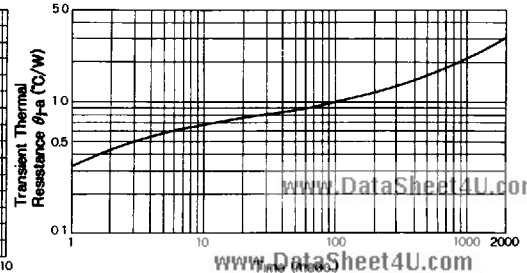


### Frequency Characteristics

(V<sub>CE</sub> = 12V Const.)



### Transient Thermal Resistance Characteristics



# Outline Drawings/Accessories

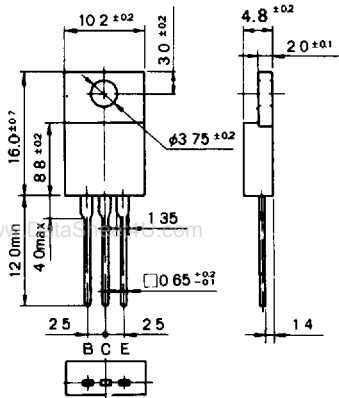
T91-20

## Outline Drawing

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

### Outline Drawing 1

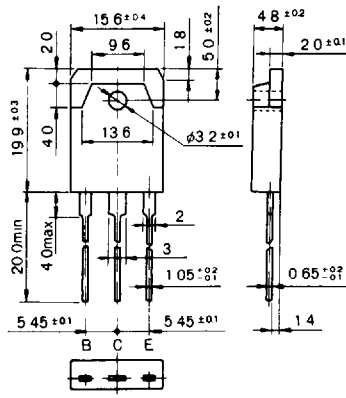
MT-25(TO220)



Weight: Approx. 2.6 g

### Outline Drawing 2

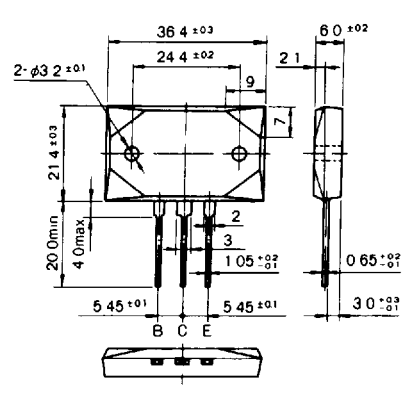
MT-100(TO3P)



Weight: Approx. 6.0 g

### Outline Drawing 3

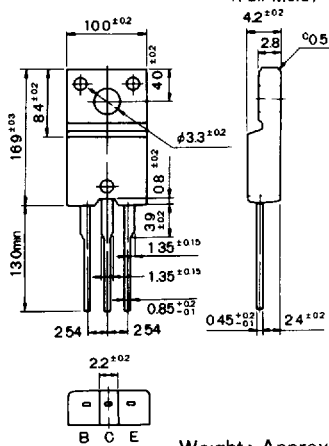
MT-200



Weight: Approx. 18.4 g

### Outline Drawing 4

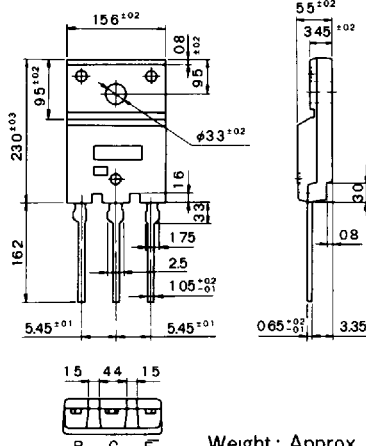
FM20  
(Full Mold)



Weight: Approx. 2.0 g

### Outline Drawing 5

FM100  
(Full Mold)



Weight: Approx. 6.5 g

## Accessories

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

☆ Sanken transistor case is a standard size, and can replace any generally sold product.

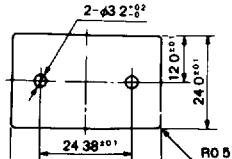
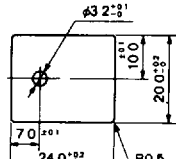
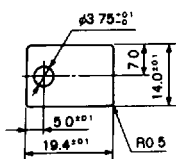
- Heatsink: Mica, with a thickness of 0.06 mm, +0.045 -0.005 allowance

- Insulation Bush for MT-25 (TO220)

Type Name: Molded (10) Mica

Type Name: Molded (14) Mica

Type Name: Molded (9) Mica



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