

# SMA6501

## Silicon NPN, PNP Epitaxial Planar

### Maximum Ratings

(Ta=25°C)

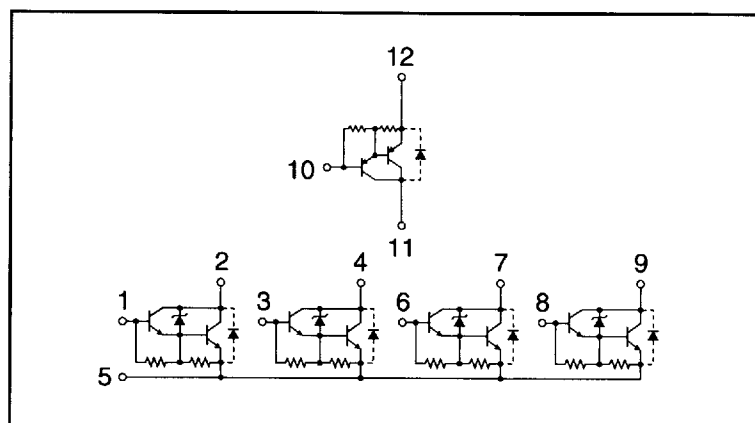
Item	Symbol	Ratings		Unit
		NPN	PNP	
Collector-to-Base Voltage	V <sub>CB0</sub>	100±15	-50	V
Collector-to-Emitter Voltage	V <sub>CE0</sub>	100±15	-50	V
Emitter-to-Base Voltage	V <sub>EB0</sub>	6	-6	V
Collector Current	I <sub>C</sub>	2	-4	A
Base Current	I <sub>B</sub>	0.5	-0.5	A
Total Power Dissipation	P <sub>T</sub>	4 (Ta=25°C)		W
		20 (Tc=25°C)		
Storage Temperature	T <sub>stg</sub>	-40~+150		°C

### Electrical Characteristics

(Ta=25°C)

Item	Symbol	Specification		Unit
		NPN	PNP	
Collector Cut-off Current	I <sub>CB0</sub>	10max (V <sub>CB</sub> =85V)	-10max (V <sub>CB</sub> =-50V)	μA
Emitter Cut-off Current	I <sub>EB0</sub>	5max (V <sub>EB</sub> =6V)	-10max (V <sub>EB</sub> =-6V)	mA
Collector-to-Emitter Voltage	V <sub>CE0</sub>	100±15min (I <sub>C</sub> =10mA)	-50min (I <sub>C</sub> =-10mA)	V
DC Forward Current Transfer Ratio	h <sub>FE</sub>	2000min (V <sub>CE</sub> =4V, I <sub>C</sub> =1A)	2000min (V <sub>CE</sub> =-4V, I <sub>C</sub> =-2A)	
Collector-to-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	1.5max (I <sub>C</sub> =1A, I <sub>B</sub> =2mA)	-1.5max (I <sub>C</sub> =-2A, I <sub>B</sub> =-4mA)	V

### Equivalent Circuit Diagram

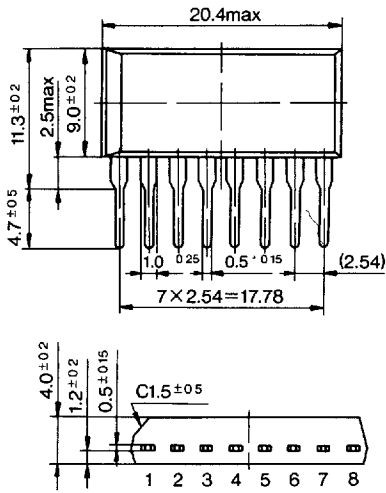


# Notes on using products

## Outline Drawings (Unit:in mm)

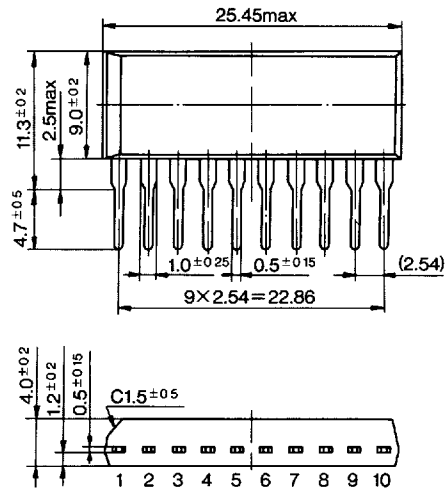
### STA Family

#### STA300 Series



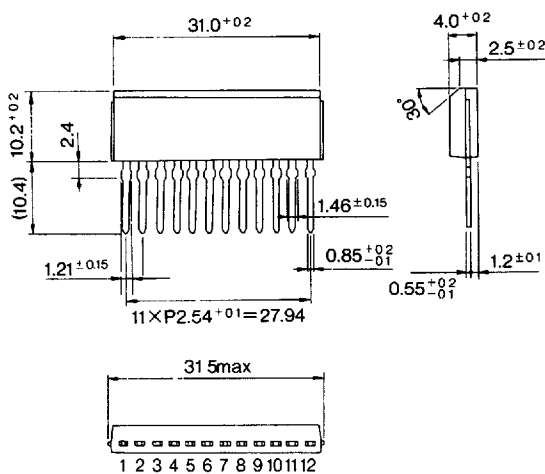
Weight Approx. 2.0g

#### STA400 Series



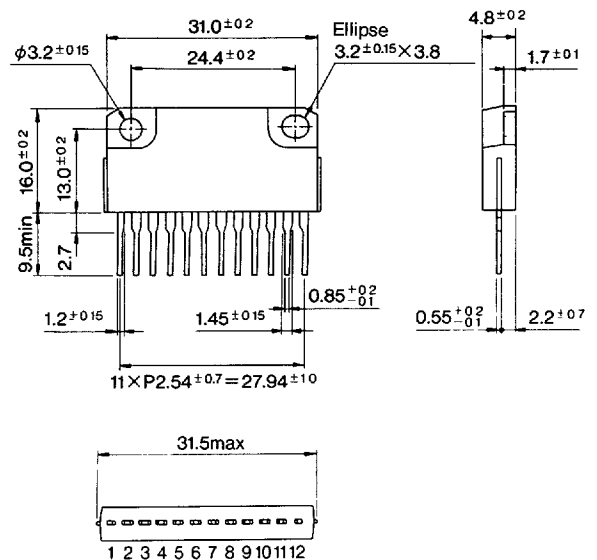
Weight Approx. 2.6g

### SMA Family



Weight Approx. 4.0g

### SLA Family



Weight Approx. 6.0g