

# Silicon Triple Diffused Planar Transistor

T-33-13

**2SD917 (NPN)**

TOP-3 Package

## 2SD917 (NPN)

### Absolute Maximum Ratings (Ta=25°C)

Item	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	330	V
Collector-Emitter Voltage	V <sub>CE0</sub>	200	V
Emitter-Base Voltage	V <sub>EB0</sub>	6	V
Peak Collector Current	I <sub>CM</sub>	10	A
Collector Current	I <sub>C</sub>	7	A
Collector Power Dissipation	P <sub>C</sub> *	70	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55~+150	°C

\*T<sub>c</sub>=25°C

### High Power TV Deflection

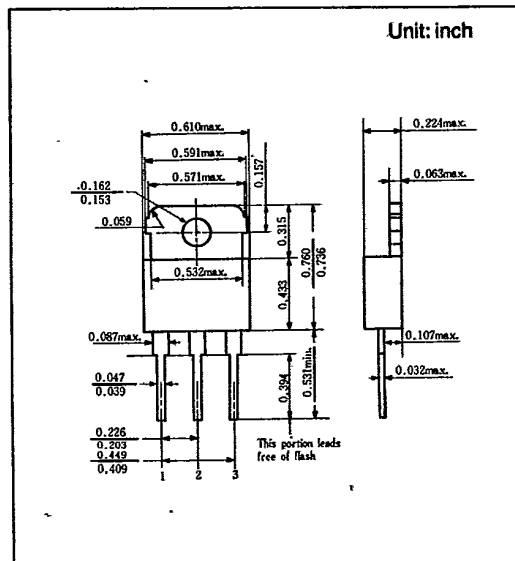
#### Feature:

- High collector power dissipation: 70W(T<sub>c</sub>=25°C)

### Electrical Characteristics (Ta=25°C)

Item	Symbol	Condition	min.	max.	Unit
Emitter Cutoff Current	I <sub>EB0</sub>	V <sub>EB</sub> =6V, I <sub>C</sub> =0		1	mA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> =4V, I <sub>C</sub> =5A	15	45	—
Base Emitter Voltage	V <sub>BE</sub>	I <sub>C</sub> =5A, I <sub>B</sub> =0.5A		1.2	V
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =5A, I <sub>B</sub> =0.5A		1	V
Gain Bandwidth Product	f <sub>T</sub>	I <sub>C</sub> =5A, I <sub>B</sub> =0.5A		0.75	μS
Emitter-Collector Current, Base Shorted	I <sub>CES</sub>	V <sub>CE</sub> =330V, V <sub>BE</sub> =0		0.1	mA
Emitter-Collector Current, Base Shorted	I <sub>CES</sub>	V <sub>CE</sub> =300V, V <sub>BE</sub> =0, Ta=100°C		1	mA
Thermal Resistance Junction to Ambient	R <sub>TH</sub>			1.8	°C/W

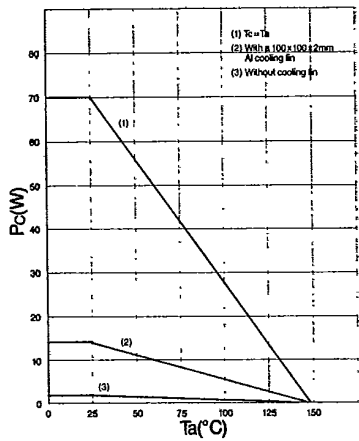
### TOP-3 Package Dimensions



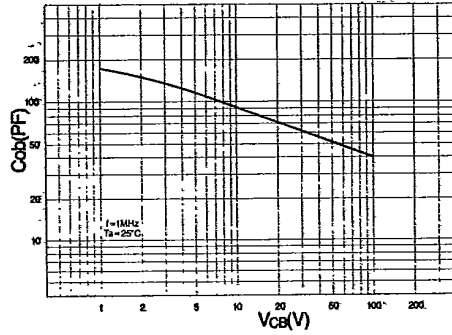
# 2SD917 (NPN)

## Typical Characteristics

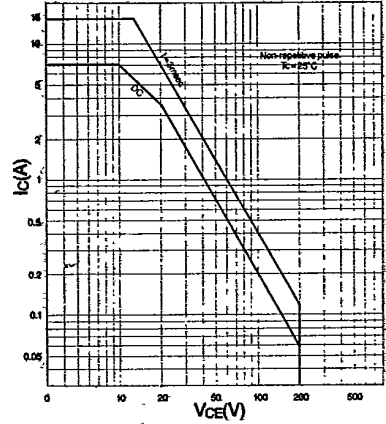
Pc vs. Ta characteristics



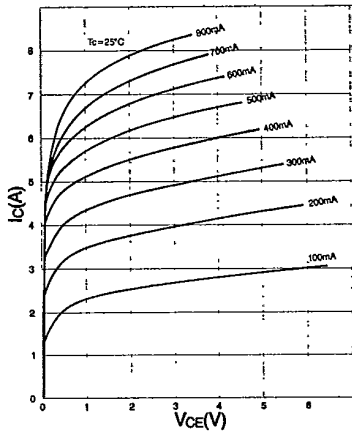
Cob vs. Vcb characteristics



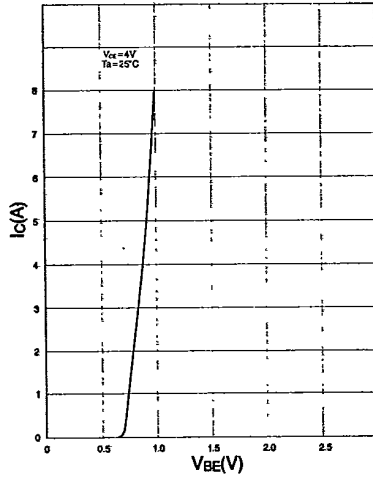
Area of Safe Operation (ASO) ( $T_c = 25^\circ\text{C}$ )



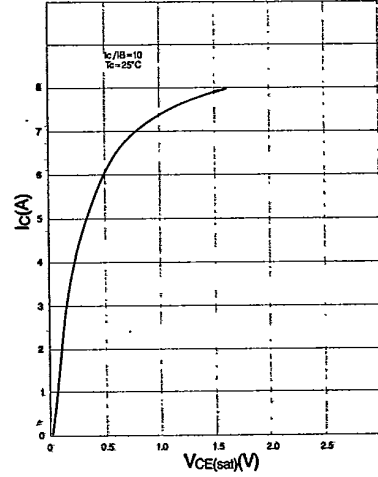
Vce vs. Ic characteristics



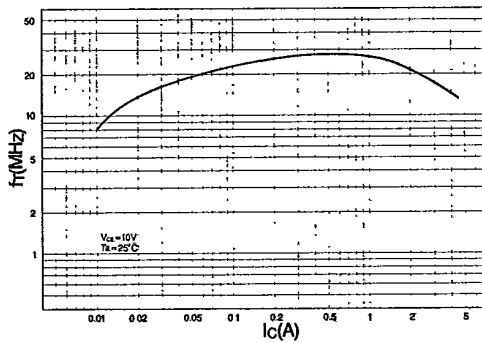
Vbe vs. Ic characteristics



Vce(sat) vs. Ic characteristics



fr vs. Ic characteristics



hFE vs Ic characteristics

