

**TRANSISTOR (NPN)**
**Plastic-Encapsulate Transistor**
**FEATURES**

Power dissipation

$$P_{CM}: 0.625W (T_{amb}=25^{\circ}C)$$

Collector current

$$I_{CM}: 0.6A$$

Collector-base voltage

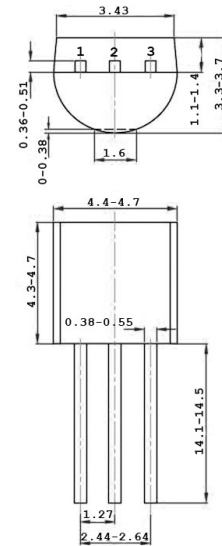
$$V_{(BR)CBO}: 60V$$

Operating and storage junction temperature range

$$T_J, T_{stg}: -55^{\circ}C \text{ to } +150^{\circ}C$$

**TO-92**

1. EMITTER
2. BASE
3. COLLECTOR



UNIT:mm

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

**ELECTRICAL CHARACTERISTICS**

Parameters	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100 \mu A, I_E=0$	60		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100 \mu A, I_C=0$	6		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=50V, I_E=0$		0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE}=35V, I_B=0$		0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$		0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=150mA$	100	300	
Collector-emitter saturation voltage	$V_{CEsat}$	$I_C=150mA, I_B=15mA$		0.4	V
Base-emitter saturation voltage	$V_{BEsat}$	$I_C=150mA, I_B=15mA$		0.95	V
Transition frequency	$f_r$	$V_{CE}=10V, I_C=20mA$ $f=100MHz$	250		MHz