

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

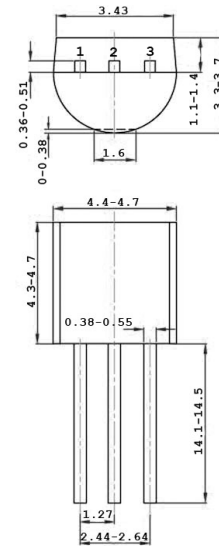
$$V_{(BR)CBO}: 75V$$

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	$V_{(BR)CBO}$	$I_C=10 \mu A, I_E=0$	75		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	40		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10 \mu A, I_C=0$	6.5		V
Collector cut-off current	I_{CBO}	$V_{CB}=70V, I_E=0$		0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=35V, I_B=0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=3V, I_C=0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=10V, I_C=150mA$	100	300	
	$h_{FE(2)}$	$V_{CE}=10V, I_C=1mA$	60		
Collector-emitter saturation voltage	V_{CEsat}	$I_C=500mA, I_B=50mA$		1	V
Base-emitter saturation voltage	V_{BEsat}	$I_C=500mA, I_B=50mA$		2	V
Transition frequency	f_r	$V_{CE}=20V, I_C=20mA$ $f=100MHz$	300		MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	100-200	200-300