

TRANSISTOR (NPN)

Plastic-Encapsulate Transistor

FEATURES

Power dissipation

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

Collector current

I_{CM} : 0.2A

Collector-base voltage

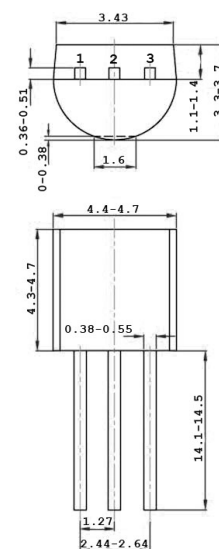
$V_{(BR)CBO}$: 60V

Operating and storage junction temperature range

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

TO-92

1. EMITTER
2. BASE
3. COLLECTOR



UNIT:mm

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at $25^{\circ}C$ 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}	$V_{CB}=60V, I_E=0$		0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=40V, I_B=0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$		0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=10mA$	100	300	
	$h_{FE(2)}$	$V_{CE}=1V, I_C=50mA$	60		
Collector-emitter saturation voltage	V_{CEsat}	$I_C=50mA, I_B=5mA$		0.4	V
Base-emitter saturation voltage	V_{BEsat}	$I_C=50mA, I_B=5mA$		0.95	V
Transition frequency	f_r	$V_{CE}=20V, I_C=10mA$ $f=100MHz$	250		MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	G
Range	100-200	200-300	300-400