

TRANSISTOR (NPN)

Plastic-Encapsulate Transistor

FEATURES

Power dissipation

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

Collector current

I_{CM} : 0.05A

Collector-base voltage

$V_{(BR)CBO}$: 35V

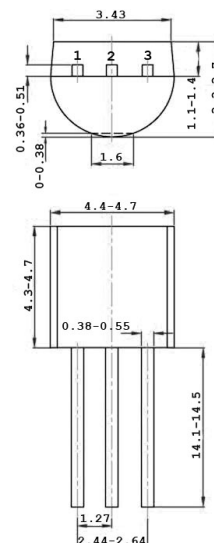
Operating and storage junction temperature range

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

T_J : $150^{\circ}C$

TO-92

1. EMITTER
2. COLLECTOR
3. BASE



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	$V_{(BR)CBO}$	$I_C=100\mu A$, $I_E=0$	35		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA$, $I_B=0$	30		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A$, $I_C=0$	4		V
Collector cut-off current	I_{CBO}	$V_{CB}=35V$, $I_E=0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V$, $I_C=0$		1.0	μA
DC current gain	h_{FE}	$V_{CE}=12V$, $I_C=2mA$	40	240	
Collector-emitter saturation voltage	V_{CEsat}	$I_C=10mA$, $I_B=1mA$		0.4	V
Base-emitter voltage	V_{BEsat}	$I_C=10mA$, $I_B=1mA$		1.0	V
Transition frequency	f_r	$V_{CE}=10V$, $I_C=1mA$	100		MHz

CLASSIFICATION OF h_{FE}

Rank	R	O	Y
Range	40-80	70-140	120-240