

TRANSISTOR (NPN)

Plastic-Encapsulate Transistor

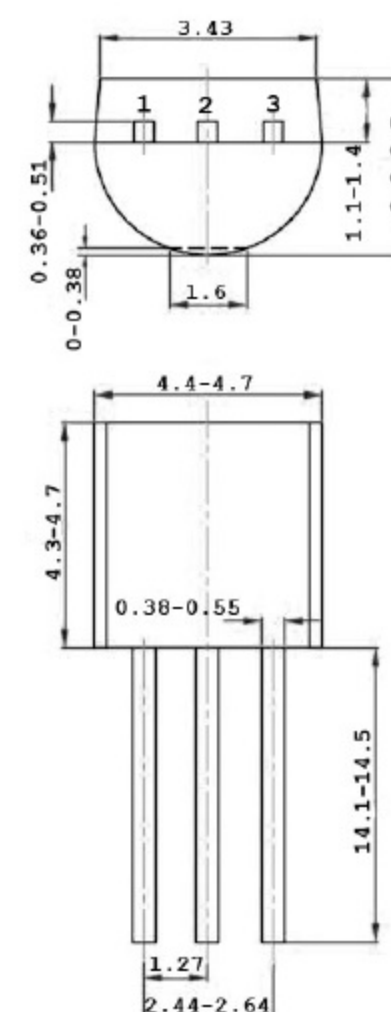
FEATURES

General Purpose Amplifier Transistor

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	25	V
V_{CE0}	Collector-Emitter Voltage	25	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current	500	mA
P_C	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	200	$^{\circ}\text{C/W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

TO-92

1. EMITTER
2. COLLECTOR
3. BASE



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 $^{\circ}\text{C}$ ambient temperature unless otherwise specified.

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 0.01\text{mA}, I_E = 0$	25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 0.01\text{mA}, I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 25\text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	100		500	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10\text{mA}, I_B = 1\text{mA}$			0.25	V
Base-emitter voltage	V_{BE}	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	0.5		1.2	V