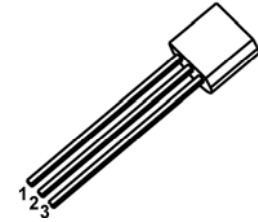


Features

- Small Signal NPN Transistor
- For General Purpose Applications



1. Emitter 2. Collector 3. Base

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

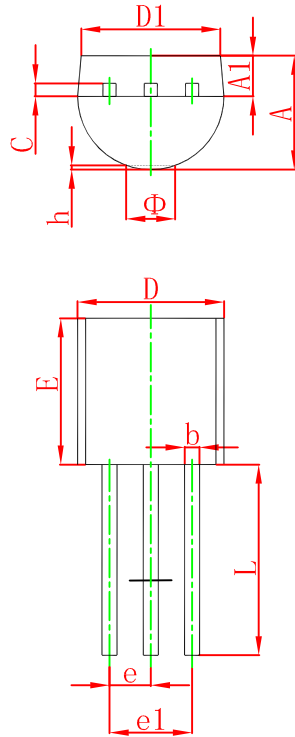
Package: TO-92

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	25	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Collector Power Dissipation	P_C	625	mW
Thermal Resistance From Junction to Ambient	$R_{\theta JA}$	200	$^{\circ}\text{C}/\text{W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	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

Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015