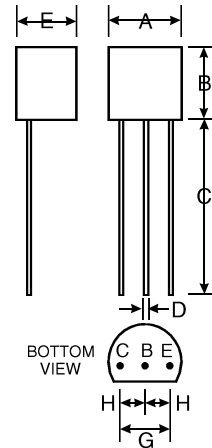


### Features

For General Purpose Switching and Amplifier Applications  
Especially Suitable for AF Driver and Low Power Output Stages

### Mechanical Data

Case: TO-92, Plastic  
Leads: Solderable per MIL STD 202, Method 208  
Pin Connections: See Diagram  
Approx. Weight: 0.18 grams



TO-92		
Dim	Min	Max
A	4.32	4.83
B	4.32	4.78
C	12.50	15.62
D	0.36	0.56
E	3.15	3.94
G	2.29	2.79
H	1.14	1.40
All Dimensions in mm		

### Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Collector-Emitter Voltage	$V_{CE0}$	25	V
Collector-Base Voltage	$V_{CBO}$	30	V
Emitter-Base-Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	200	mA
Peak Collector Current	$I_{CM}$	800	mA
Base Current	$I_B$	50	mA
Power Dissipation (Note 1)	$P_d$	625	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{JA}$	200	K/W
Operating and Storage Temperature Range	$T_j, T_{STG}$	-65 to +150	$^\circ\text{C}$

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
DC Current Gain	$h_{FE}$	120 —	— 60	360 —	—	$V_{CE} = 1.0\text{V}, I_C = 2.0\text{mA}$ $V_{CE} = 1.0\text{V}, I_C = 50\text{mA}$
Collector-Base Cutoff Current	$I_{CBO}$	—	—	50	nA	$V_{CB} = 20\text{V}$
Emitter-Base Cutoff Current	$I_{EBO}$	—	—	50	nA	$V_{EB} = 3.0\text{V}$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	—	—	0.3	V	$I_C = 50\text{mA}, I_B = 5.0\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	—	—	0.95	V	$I_C = 50\text{mA}, I_B = 5.0\text{mA}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	—	—	V	$I_C = 1.0\text{mA}$
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	30	—	—	V	$I_C = 10\mu\text{A}$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5.0	—	—	V	$I_E = 10\mu\text{A}$
Gain Bandwidth Product	$f_T$	—	200	—	MHz	$V_{CE} = 5.0\text{V}, I_C = 10\text{mA}, f = 50\text{MHz}$
Collector-Base Capacitance	$C_{CBO}$	—	—	12	pF	$V_{CB} = 10\text{V}, f = 1.0\text{MHz}$

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 2.0mm from case.

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