

NPN SMALL SIGNAL TRANSISTOR

Features

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

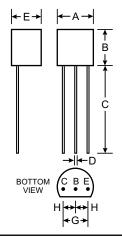
Mechanical Data

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					
Α	4.32	4.83					
В	4.32	4.78					
С	12.50	15.62					
D	0.36	0.56					
E	3.15	3.94					
G	2.29	2.79					
Н	1.14	1.40					
All Dimensions in mm							

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	25	٧
Collector-Base Voltage	V _{CBO}	30	V
Emitter Base-Voltage	V _{EBO}	5	٧
Collector Current	Ic	200	mA
Peak Collector Current	I _{CM}	800	mA
Base Current	I _B	50	mA
Power Dissipation (Note 1)	Pd	625	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	200	K/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Conditions
DC Current Gain	h _{FE}	120 —	<u> </u>	360 —	_	$V_{CE} = 1.0V, I_{C} = 2.0 \text{mA}$ $V_{CE} = 1.0V, I_{C} = 50 \text{mA}$
Collector-Base Cutoff Current	I _{CBO}	_	_	50	nA	V _{CB} = 20V
Emitter-Base Cutoff Current	I _{EBO}	_	_	50	nA	V _{EB} = 3.0V
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	_	_	0.3	V	I _C = 50mA, I _B = 5.0mA
Base-Emitter Saturation Voltage	V _{BE(SAT)}	_	_	0.95	V	I _C = 50mA, I _B = 5.0mA
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	25	_	_	V	I _C = 1.0mA
Collector-Base Breakdown Voltage	V _{(BR)CBO}	30	_	_	V	I _C = 10μA
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	5.0	_	_	V	I _E = 10μA
Gain Bandwidth Product	f⊤	_	200	_	MHz	$V_{CE} = 5.0V, I_{C} = 10mA, f = 50MhZ$
Collector-Base Capacitance	C _{CBO}	_	_	12	pF	V _{CB} = 10V, f = 1.0MHz

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