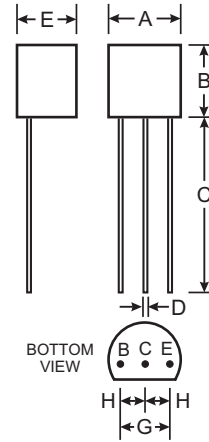


### Features

- High Current Gain
- 600 mW Power Dissipation

### Mechanical Data

- Case: TO-92, Plastic
- Leads: Solderable per MIL-STD-202, Method 208
- Pin Connections: See Diagram
- Marking: Type Number
- 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	$V_{CEO}$	25	V
Collector-Base Voltage	$V_{CBO}$	25	V
Emitter-Base Voltage	$V_{EBO}$	5.0	V
Collector Current	$I_C$	500	mA
Power Dissipation (Notes 2 & 3)	$P_d$	600	mW
Operating and Storage Temperature Range	$T_j, T_{STG}$	-55 to +150	$^\circ\text{C}$

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

Characteristic	Symbol	Min.	Max	Unit	Test Condition
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	25	—	V	$I_C = 10\mu\text{A}$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	—	V	$I_C = 10\text{mA}$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5.0	—	V	$I_E = 10\mu\text{A}$
Collector Cutoff Current	$I_{CBO}$	—	100	nA	$V_{CB} = 25\text{V}$
Emitter Cutoff Current	$I_{EBO}$	—	100	nA	$V_{EB} = 5.0\text{V}$
DC Current Gain	$h_{FE}$	100	500	—	$V_{CE} = 10\text{V}$ $I_C = 10\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	—	0.25	V	$I_C = 10\text{mA}$ $I_B = 1.0\text{mA}$
Base-Emitter On Voltage	$V_{BE(ON)}$	0.5	1.2	V	$V_{CE} = 10\text{V}$ $I_C = 10\text{mA}$
Small Signal Current Gain	$h_{fe}$	100	750	—	$V_{CE} = 10\text{V}$ $I_C = 10\text{mA}$ $f = 1.0\text{kHz}$
Collector-Base Capacitance	$C_{cb}$	1.6	10	pF	$V_{CB} = 10\text{V}$ $f = 1.0\text{MHz}$

- Notes:
1. These ratings are limiting values above which the serviceability of the semiconductor device may be impaired.
  2. These are steady state limits.
  3. These ratings are based on a maximum junction temperature of  $150^\circ\text{C}$ .