

Small Signal Diode

Features

- ✧ Epitaxial planar die construction
- ✧ Surface device type mounting
- ✧ Moisture sensitivity level 1
- ✧ Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- ✧ Pb free version and RoHS compliant
- ✧ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

Mechanical Data

- ✧ Case : TO-92 plastic package
- ✧ Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Weight : 0.19gram (approximately)
- ✧ High temperature soldering guaranteed: 260°C/10s

Ordering Information

Package	Part No.	Packing
TO-92	BC337-16 A1	4K/box
TO-92	BC337-16 A1G	4K/box
TO-92	BC337-25 A1	4K/box
TO-92	BC337-25 A1G	4K/box
TO-92	BC337-40 A1	4K/box
TO-92	BC337-40 A1G	4K/box
TO-92	BC338-16 A1	4K/box
TO-92	BC338-16 A1G	4K/box
TO-92	BC338-25 A1	4K/box
TO-92	BC338-25 A1G	4K/box
TO-92	BC338-40 A1	4K/box
TO-92	BC338-40 A1G	4K/box

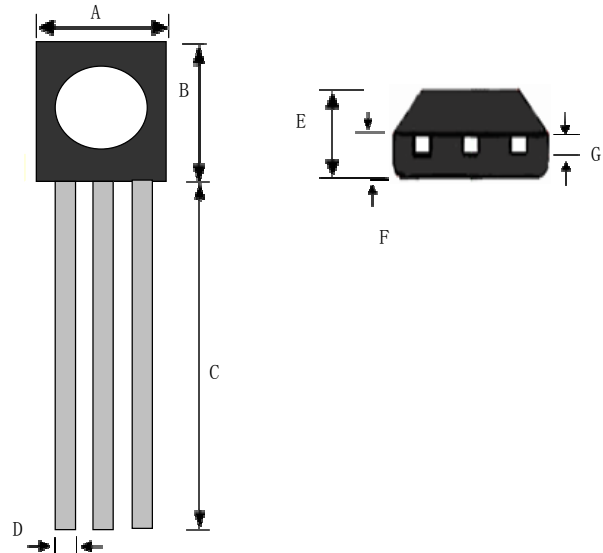
Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	BC337	BC338	Units
Power Dissipation	P_D	625		mW
Collector-Base Voltage	V_{CBO}	50	30	V
Collector-Emitter Voltage	V_{CEO}	45	25	V
Emitter-Base Voltage	V_{EBO}	5		V
Peak Collector Current	I_{CM}	1		A
Collector Current	I_C	800		mA
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150		°C

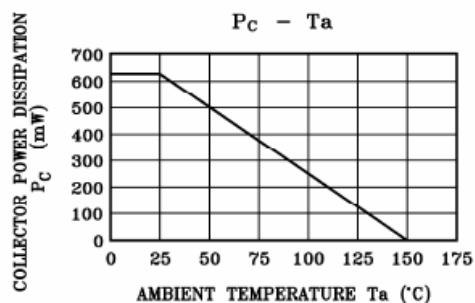
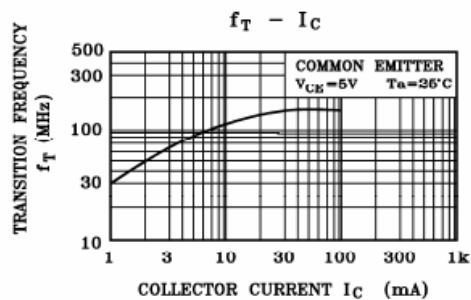
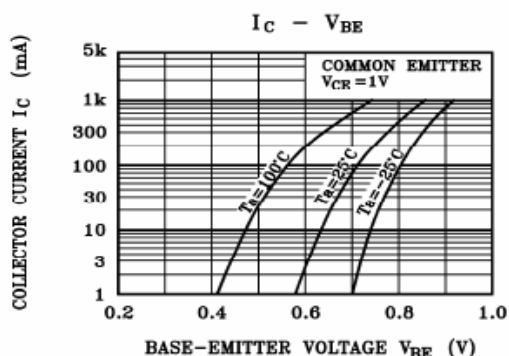
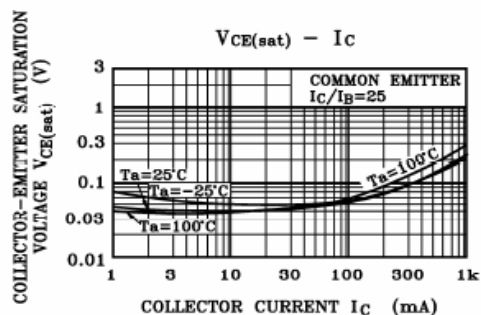
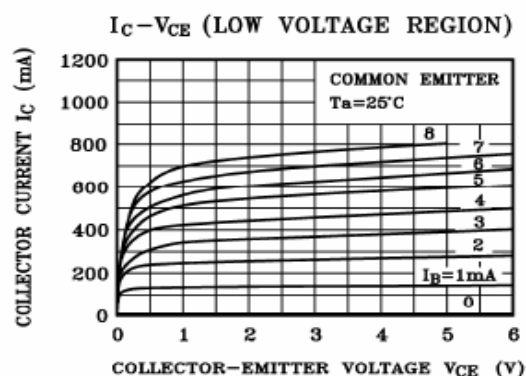
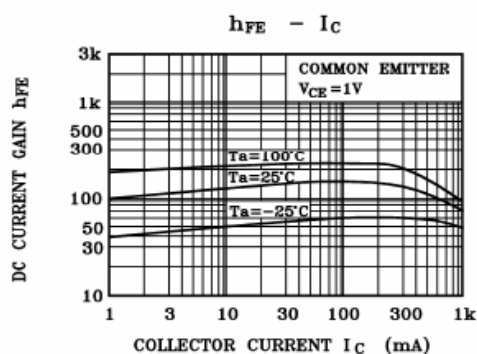
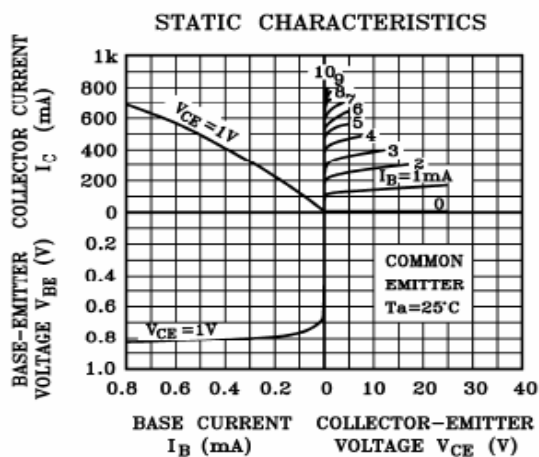
Notes:1. Valid provided that electrodes are kept at ambient temperature

TO-92


Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.50	4.70	0.177	0.185
B	4.50	4.70	0.177	0.185
C	12.50		0.492	
D	0.35	0.45	0.013	0.017
E	3.50	3.70	0.137	0.145
F	1.00	1.20	0.039	0.047
G	0.29	0.39	0.011	0.015

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Rating and Characteristic Curves



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Electrical Characteristics $T_a=25^\circ\text{C}$

Type Number	Symbol	Min	Max	Units
Collector-Base Breakdown Voltage BC337 BC338	$I_C=100\mu\text{A}$ $V_{(BR)CBO}$	50 30	- -	V
Collector-Emitter Breakdown Voltage BC337 BC338	$I_C=2\text{mA}$ $V_{(BR)CEO}$	45 25	- -	V
Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}$ $V_{(BR)EBO}$	5	-	V
Collector Cut-off Current BC337 BC338	$V_{CB}=50\text{V}$ $V_{CB}=30\text{V}$ I_{CBO}	-	100 100	nA
DC current gain current gain Group16 25 40	$V_{CE}=1\text{V}$ $V_{CE}=1\text{V}$ $V_{CE}=1\text{V}$ $I_C=100\text{mA}/300\text{mA}$ $I_C=100\text{mA}/300\text{mA}$ $I_C=100\text{mA}/300\text{mA}$ h_{FE}	100/60 160/60 250/60	250 400 630	- - -
Collector-Emitter saturation voltage	$I_C=500\text{mA}$ $I_B=50\text{mA}$ $V_{CE(sat)}$	- -	0.7	V
Base-Emitter on voltage	$V_{CE}=1\text{V}$ $I_C=300\text{mA}$ $V_{BE(on)}$	-	1.2	V
Transition Frequency $V_{CE}=5\text{V}$	$I_C=10\text{mA}$ $f=50\text{MHz}$ f_T	100	-	MHz
Collector Base Capacitance	$V_{CB}=10\text{V}$ $f=1\text{MHz}$ C_{CB}	-	12	PF

Tape & Reel specification

