

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

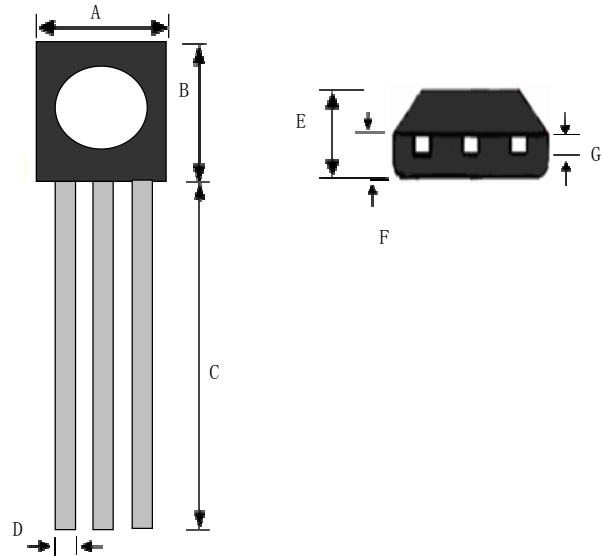
Rating at 25°C ambient temperature unless otherwise specified.

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

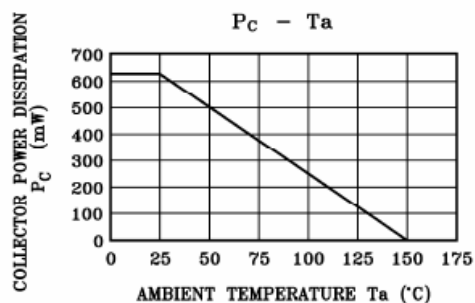
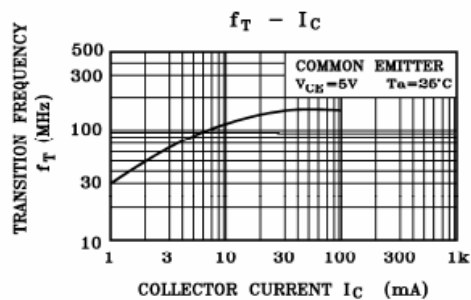
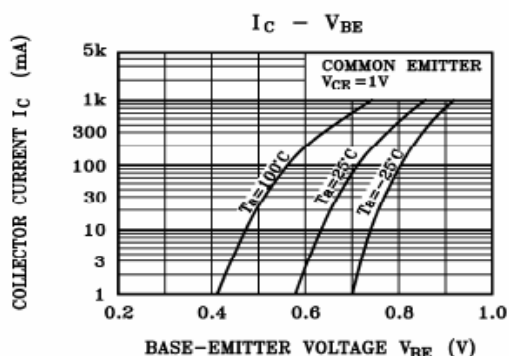
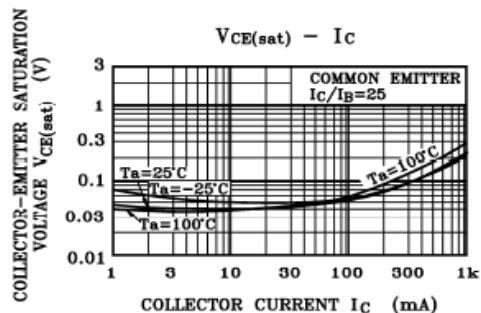
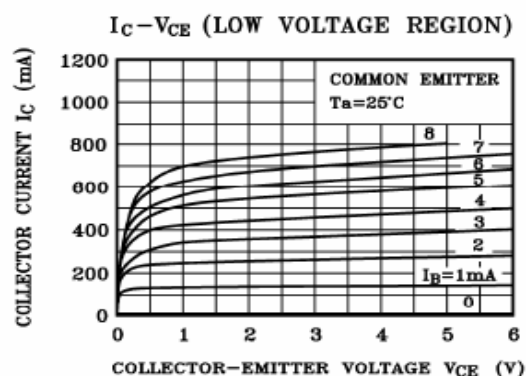
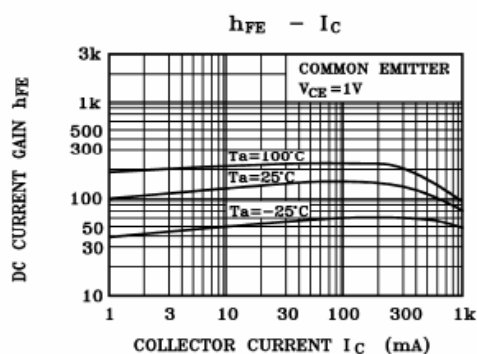
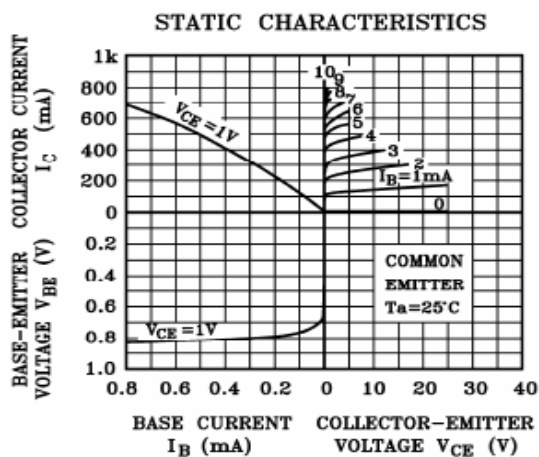
TO-92



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

Small Signal Diode

Rating and Characteristic Curves



Small Signal Diode

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

Type Number				Symbol	Min	Max	Units
Collector-Base Breakdown Voltage		BC337 BC338	I _C = 100μA	V _{(BR)CBO}	50 30	- - -	V
Collector-Emitter Breakdown Voltage		BC337 BC338	I _C = 2mA	V _{(BR)CEO}	45 25	- - -	V
Emitter-Base Breakdown Voltage			I _E = 100μA	V _{(BR)EBO}	5	-	V
Collector Cut-off Current		BC337 BC338	V _{CB} =50V V _{CB} =30V	I _{CBO}	-	100 100	nA
DC current gain		current gain Group16 25 40	V _{CE} =1V	h _{FE}	100/60 160/60 250/60	250 400 630	- - -
			I _C =100mA/300mA				
			V _{CE} =1V				
			I _C =100mA/300mA				
Collector-Emitter saturation voltage			I _C =500mA I _B =50mA	V _{CE(sat)}	- -	0.7	V
Base-Emitter on voltage			V _{CE} = 1V I _C =300mA	V _{BE(on)}	-	1.2	V
Transition Frequency		V _{CE} =5V	I _C =10mA f= 50MHz	f _T	100	-	MHz
Collector Base Capacitance			V _{CB} =10V f= 1MHz	C _{CB}	-	12	PF

Tape & Reel specification

