

BC327 & BC337

General Purpose Transistors

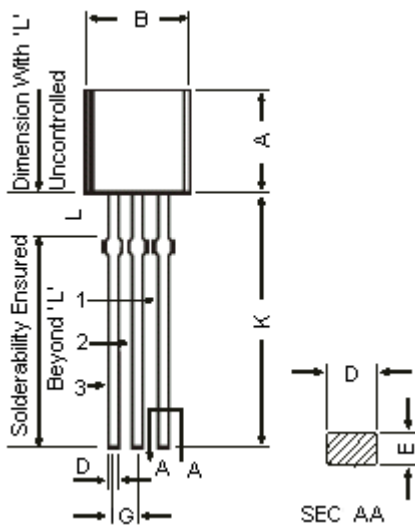


General Description and Suggested Applications:

- PNP/NPN Silicon Planar Epitaxial Transistors.
- Complementary Transistors for use in Driver and Output Stages of Audio Amplifiers

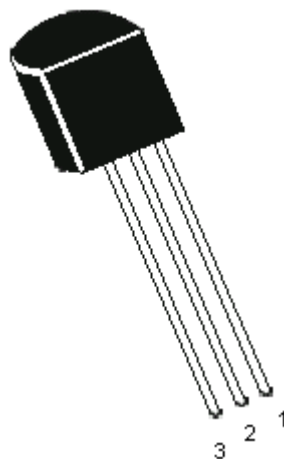
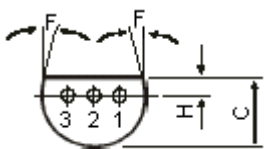
BC327 PNP BC337 NPN

TO-92 Plastic Package



Dimensions	Minimum	Maximum
A	4.32	5.33
B	4.45	5.20
C	3.18	4.19
D	0.41	0.55
E	0.35	0.50
F	5°	
G	1.14	1.40
H	1.14	1.53
K	12.70	-
L	1.982	2.082

Dimensions : Millimetres



Pin Configuration

1. Emitter
2. Base
3. Collector

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Absolute Maximum Ratings

Parameter	Symbol	BC327 NPN BC337 PNP	Unit
Collector-Emitter Voltage	V_{CEO}	45	V
Collector-Emitter Voltage	V_{CES}	50	
Emitter-Base Voltage	V_{EBO}	5.0	
Collector Current Continuous Peak	I_C	800	mA
	I_{CM}	1.0	A
Emitter Current Peak	I_{EM}	1.0	
Base Current Continuous	I_B	100	mA
Base Current Peak	I_{BM}	200	
Power Dissipation at $T_a = 25^\circ\text{C}$ Derate above 25°C	P_{TA}	625 5.0	mW mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_j, T_{stg}	-65 to +150	$^\circ\text{C}$
Thermal Resistance			
From Junction to Ambient in Free Air	$R_{th(j-a)}$	200	$^\circ\text{C}/\text{W}$

Electrical Characteristics ($T_a = 25^\circ\text{C}$ Unless Otherwise Specified)

Parameter	Symbol	Test Condition	BC327	Unit
Collector-Emitter Voltage	V_{CEO}	$I_C = 10\text{mA}, I_B = 0$	>45	V
	V_{CES}	$I_C = 100\mu\text{A}, I_E = 0$	>50	V
Emitter-Base Voltage	V_{EBO}	$I_E = 10\mu\text{A}, I_C = 0$	>5.0	V
Collector-Cut off Current	I_{CBO}	$V_{CB} = 20\text{V}, I_E = 0$	<100	nA
		$V_{CB} = 20\text{V}, I_E = 0, T_J = 150^\circ\text{C}$	<5.0	μA
Emitter Cut off Current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$	<10	μA
DC Current Gain	h_{FE}^*	$I_C = 100\text{mA}, V_{CE} = 1\text{V}$ Group 16 Group 25	100-600 100-250 160-400	-
Collector Emitter Saturation Voltage	$V_{CE(Sat)}^*$	$I_C = 500\text{mA}, I_B = 50\text{mA}$	<0.70	V
Base Emitter on Voltage	$V_{BE(on)}^*$	$I_C = 500\text{mA}, V_{CE} = 1\text{V}$	<1.20	

Dynamic Characteristics

Transistors Frequency	f_T	$I_C = 10\text{mA}, V_{CE} = 5\text{V}, f = 35\text{MHz}$	NPN PNP	Typ 200 Typ 100	MHz
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}, f = 1\text{MHz}$	NPN PNP	Typ 5.0 Typ 8.0	pF

* Pulse Test : Pulse Width = 300 μs , Duty Cycle = 2%



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Specifications

V _{CEO} maximum (V)	V _{CES} maximum (V)	I _C (A)	h _{FE} minimum at I _C = 100mA	F _T minimum (Typical*) F = 35MHz	P _{tot} (mW)	Package	Part Number
45	50	0.8	160-400	100	625	TO-92	BC327.25
		0.5	100-600	60			BC337
		1	100-250	-			BC337.16
		0.8	160-400	210			BC337.25

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Notes:

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