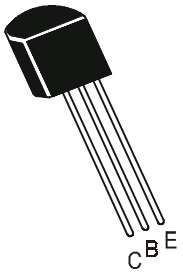
SILICON PLANAR EPITAXIAL TRANSISTORS

BC337
BC337A
BC338

TO-92
Plastic Package



Complementary Transistors For Use in Driver And Output Stages of Audio Amplifiers

ABSOLUTE MAXIMUM RATINGS(Ta=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	BC327 BC337	BC327A BC337A	BC328 BC338	UNITS
Collector Emitter Voltage	V_{CEO}	45	60	25	V
Collector Emitter Voltage	V_{CES}	50	60	30	V
Emitter Base Voltage	V_{EBO}		5.0		V
Collector Current Continuous	I_C		800		mA
Peak	I_{CM}		1.0		A
Emitter Current Peak	$I_{E\,M}$		1.0		A
Base Current Continuous	I_B		100		mA
Base Current Peak	I_{BM}		200		mA
Power Dissipation @ Ta=25°C	P_{TA}		625		mW
Derate Above 25°C			5		mW/ºC
Operating And Storage Junction Temperature Range	T_j, T_{stg}		-65 to +150		ºC
THERMAL RESISTANCE					
Junction to Ambient in Free Air	$R_{th(j-a)}$		200		ºC/W

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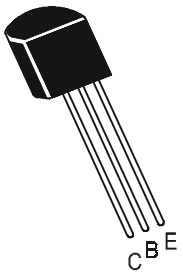

BC337
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ELECTRICAL CHARACTERISTICS (Ta=25º C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	BC327 BC337	BC327A BC337A	BC328 BC338	UNITS
Collector Emitter Voltage	V_{CEO}	I_C=10mA,I_B=0	>45	>60	>25	V
	V_{CES}	I_C=100uA,I_E=0	>50	>60	>30	V
Emitter Base Voltage	V_{EBO}	I_E=10uA, I_C=0			>5.0	V
Collector-Cut off Current	I_{CBO}	V_{CB} =20V, I_E =0			<100	nA
		T_J =150^{O}C				
		V_{CB} =20V , I_E =0			<5.0	µA
Emitter cut off Current	I_{EBO}	V_{EB} =5V, I_C =0			<10	µA
DC Current Gain	h_{FE}*	I_C=500mA,V_{CE}=1V			>40	
		I_C=100mA,V_{CE}=1V	100-600	100-400	100-600	
		Group-10	63-160		63-160	
		Group-16	100-250		100-250	
		Group-25	160-400		160-400	
		Group-40	250-600		250-600	
Collector Emitter Saturation Voltage	V_{CE}(sat)*	I_C=500mA,I_B=50mA			<0.70	V
Base Emitter On Voltage	V_{BE}(on)*	I_C=500mA,V_{CE} =1V			<1.20	V
DYNAMICS CHARACTERISTICS						
Transition Frequency	f_T	I_C=10mA, V_{CE}=5V	**NPN**		Typ 200	MHz
		f=35MHz	**PNP**		Typ 100	MHz
Out-put Capacitance	C_{ob}	V_{CB}=10V, f=1MHz	**NPN**		Typ 5.0	pF
Noise Figure			**PNP**		Typ 8.0	pF

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

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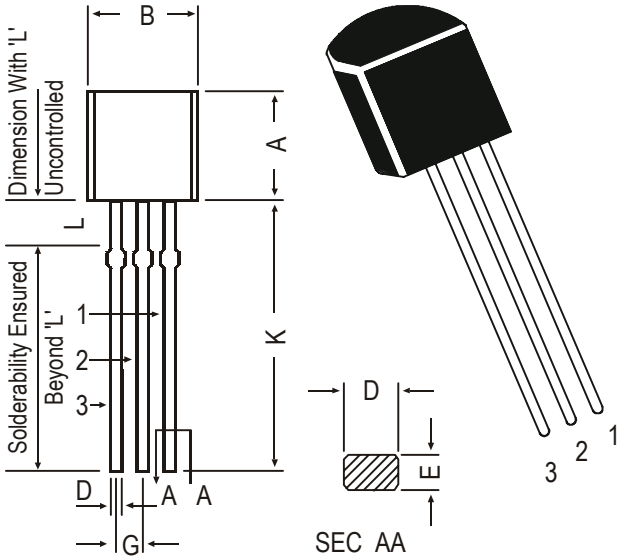
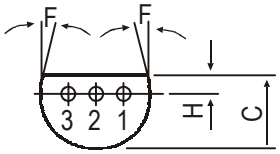


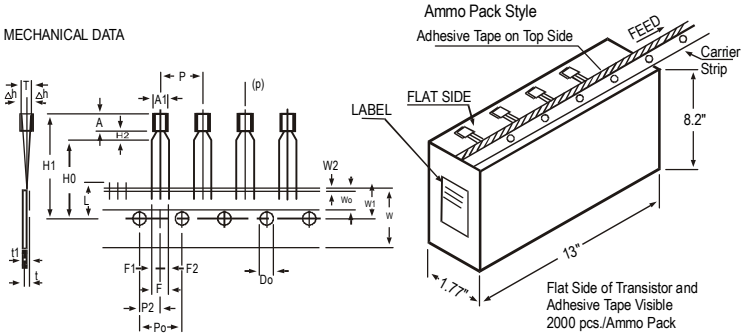


PIN CONFIGURATION
1. EMITTER
2. BASE
3. COLLECTOR

DIM	MIN.	MAX.
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 DEG	
G	1.14	1.40
H	1.14	1.53
K	12.70	—
L	1.982	2.082

All diminsions in mm.

TO-92 Transistors on Tape and Ammo Pack



All dimensions in mm unless specified otherwise

ITEM	SYMBOL	SPECIFICATION MIN.	NOM.	MAX.	TOL .	REMARKS
BODY WIDTH	A1	4.0		4.8		
BODY HEIGHT	A	4.8		5.2		
BODY THICKNESS	T	3.9		4.2		
PITCH OF COMPONENT	P		12.7		±1	
FEED HOLE PITCH	Po		12.7		±0.3	CUMULATIVE PITCH ERROR 1.0 mm/20 PITCH
FEED HOLE CENTRE TO COMPONENT CENTRE	P2		6.35		±0.4	TO BE MEASURED AT BOTTOM OF CLINCH
DISTANCE BETWEEN OUTER LEADS	F		5.08		+0.6 -0.2	
COMPONENT ALIGNMENT	△h		0	1		AT TOP OF BODY
TAPE WIDTH	W		18		±0.5	
HOLD-DOWN TAPE WIDTH	Wo		6		±0.2	
HOLE POSITION	W1		9		+0.7 -0.5	
HOLD-DOWN TAPE POSITION	W2		0.5		±0.2	
LEAD WIRE CLINCH HEIGHT	Ho		16		±0.5	
COMPONENT HEIGHT	H1			23.25		
LENGTH OF SNIPPED LEADS	L			11.0		
FEED HOLE DIAMETER	Do		4		±0.2	
TOTAL TAPE THICKNESS	t			1.2		t1 0.3 - 0.6
LEAD - TO - LEAD DISTANCEF1,	F2		2.54		+0.4 -0.1	
CLINCH HEIGHT	H2			3		
PULL - OUT FORCE	(P)	6N				

NOTES
1. MAXIMUM ALIGNMENT DEVIATION BETWEEN LEADS NOT TO BE GREATER THAN 0.2 mm.
2. MAXIMUM NON-CUMULATIVE VARIATION BETWEEN TAPE FEED HOLES SHALL NOT EXCEED 1 mm IN 20 PITCHES.
3. HOLDDOWN TAPE NOT TO EXCEED BEYOND THE EDGE(S) OF CARRIER TAPE AND THERE SHALL BE NO EXPOSURE OF ADHESIVE.
4. NO MORE THAN 3 CONSECUTIVE MISSING COMPONENTS ARE PERMITTED.
5. A TAPE TRAILER, HAVING AT LEAST THREE FEED HOLES ARE REQUIRED AFTER THE LAST COMPONENT.
6. SPLICES SHALL NOT INTERFERE WITH THE SPROCKET FEED HOLES.

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-92 Bulk	1K/polybag	200 gm/1K pcs	3" x 7.5" x 7.5"	5K	17" x 15" x 13.5"	80K	23 kgs
TO-92 T&A	2K/ammo box	645 gm/2K pcs	12.5" x 8" x 1.8"	2K	17" x 15" x 13.5"	32K	12.5 kgs

Disclaimer

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