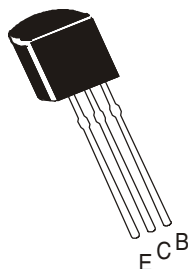


**PNP EPITAXIAL PLANAR SILICON TRANSISTOR**

**CSB1058  
TO-92  
BCE**



**Low Frequency Power Amplifier.  
Complementary CSD1489**

**ABSOLUTE MAXIMUM RATINGS(Ta=25deg C unless otherwise specified)**

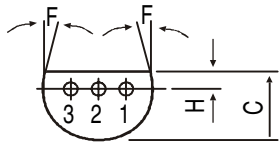
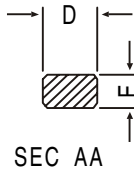
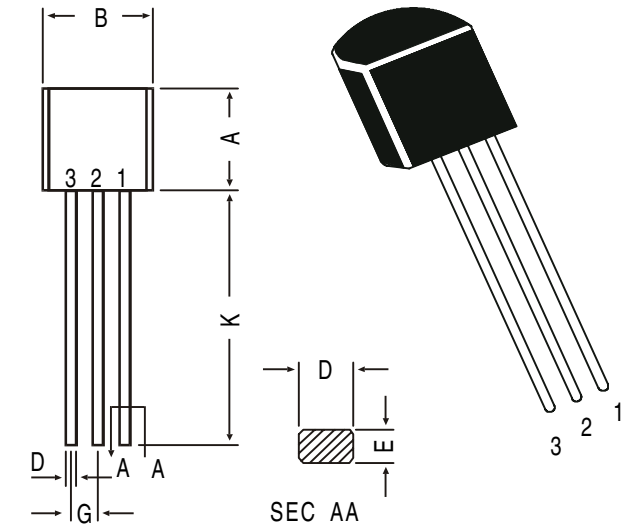
DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Base Voltage	BVCBO	20	V
Collector Emitter Voltage	BVCEO	16	V
Emitter Base Voltage	BVEBO	6.0	V
Collector Current	IC	2.0	A
Collector Power Dissipation	PC	0.75	W
Operating And Storage Junction Temperature Range	Tj, Tstg	-55 to +150	deg C

**ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Specified)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Base Voltage	BVCBO	IC=10uA, IE=0	20	-	-	V
Collector Emitter Voltage	BVCEO	IC=1mA, IB=0	16	-	-	V
Emitter Base Voltage	BVEBO	IE=10uA, IC=0	6.0	-	-	V
Collector Cut off Current	ICBO	VCB=16V, IE=0	-	-	2.0	uA
Emitter Cut off Current	IEBO	VEB=6V, IC=0	-	-	0.2	uA
DC Current Gain	hFE *	VCE=2V, IC=0.1A	100	-	400	
		VCE=2V, IC=2A	40	-	-	
Collector Emitter Saturation Voltage	VCE(Sat)	IC=1A, IB=0.1A	-	-	0.3	V
<b>Dynamic Characteristics</b>						
Transition Frequency	ft	VCE=2V, IC=10mA,	-	80	-	MHz
Collector Output Capacitance	Cob	VCB=10V, IE=0	-	50	-	pF
		f=1MHz				

**hFE\* Classification :                    A 100-240;            B 200-400;**

# TO-92 Plastic Package



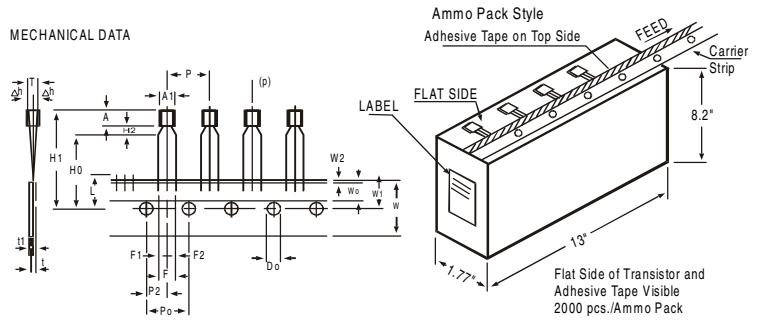
## PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER

All dimensions in mm.

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	—

## TO-92 Transistors on Tape and Ammo Pack



All dimensions in mm unless specified otherwise

ITEM	SYMBOL	SPECIFICATION				REMARKS
		MIN.	NOM.	MAX.	TOL.	
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	Δh		0	1		AT TOP OF BODY
TAPE WIDTH	W		18		±0.5	
HOLD-DOWN TAPE WIDTH	W0		6		±0.2	
HOLE POSITION	W1		9		+0.7 -0.5	
HOLD-DOWN TAPE POSITION	W2		0.5		±0.2	
LEAD WIRE CLINCH HEIGHT	H0		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 DISTANCE F1,	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"	5.0K	17" x 15" x 13.5"	80.0K	23 kgs
TO-92 T&A	2K/ammo box	645 gm/2K pcs	12.5" x 8" x 1.8"	2.0K	17" x 15" x 13.5"	32.0K	12.5 kgs

## Customer Notes

### Disclaimer

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