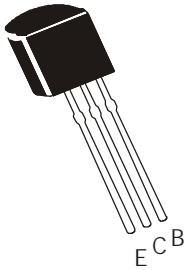


NPN SILICON PLANAR EPITAXIAL TRANSISTOR

CSC1845



**TO-92
Plastic Package**

For use as the middle range Amplifier in Hi-Fi and other similar Amplifier Applications

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Emitter Voltage	V _{CEO}	120	V
Collector Base Voltage	V _{CBO}	120	V
Emitter Base Voltage	V _{EBO}	5	V
Base Current	I _B	10	mA
Collector Current	I _C	50	mA
Power Dissipation @ T _a =25°C	P _C	500	mW
Junction Temperature	T _j	+125	°C
Storage Temperature Range	T _{stg}	- 55 to + 125	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Cut off Current	I _{CBO}	V _{CB} = 120V, I _E = 0			50	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} = 5.0V, I _C = 0			50	nA
Collector Emitter Saturation Voltage	V _{CE(sat)}	I _C = 10mA, I _B = 1.0mA			0.30	V
Base Emitter On Voltage	V _{BE(on)}	V _{CE} = 6.0V, I _C = 1.0mA	0.55		0.65	V
DC Current Gain	h _{FE}	V _{CE} = 6.0V, I _C = 0.1 mA	150			
	*h _{FE}	V _{CE} = 6.0V, I _C = 1.0 mA	200		1200	
Transition Frequency	f _T	V _{CE} = 6.0V, I _C = - 1.0mA	50			MHz
Output Capacitance	C _{ob}	V _{CB} = 30V, I _E = 0, f = 1.0MHz			2.5	pF
Noise Voltage	NV	V _{CE} = 5.0V, I _C = - 1.0mA, R _G = 100kΩ G _V = 80 dB, f = 10 Hz to 1.0 KHz			40	mV

*h_{FE} Classifications

P : 200 - 400

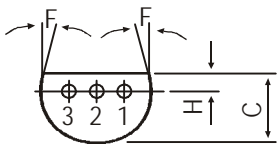
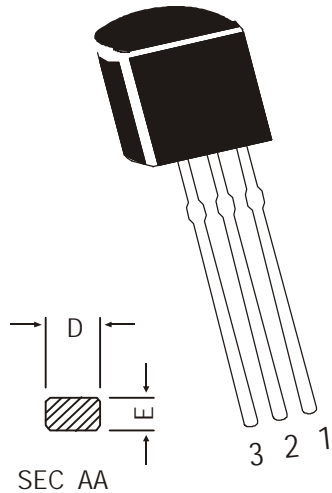
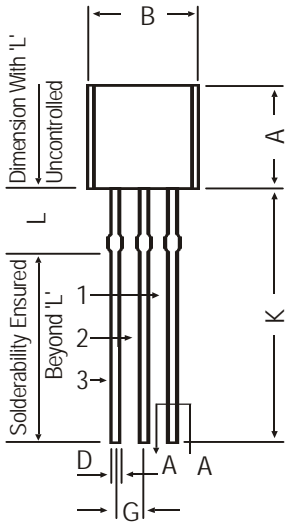
F : 300 - 600

E : 400 - 800

U : 600 - 1200

TO-92 Plastic Package

TO-92 Transistors on Tape and Ammo Pack

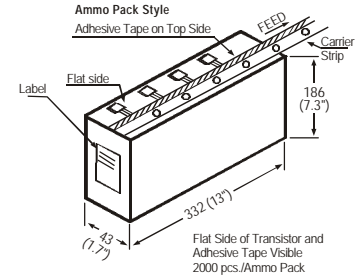
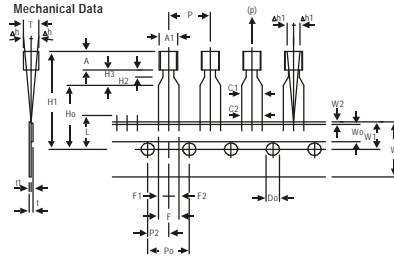


PIN CONFIGURATION

- 1. BASE
- 2. COLLECTOR
- 3. EMITTER

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 dimensions in mm.



All dimensions in mm

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		± 1.0	
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 SIDE VIEW	Δh	0	1.0		AT TOP OF BODY
COMPONENT ALIGNMENT FRONT VIEW	Δh1	0	1.3		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	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 DISTANCE	F1, F2	2.54		+ 0.4 - 0.1	
STAND OFF	H2	0.45		1.45	
CLINCH HEIGHT	H3			3.0	
LEAD PARALLELISM	C1 - C2			0.22	
PULL - OUT FORCE	(P)	6N			

NOTES

1. Maximum alignment deviation between leads will not be greater than 0.2mm.
2. Maximum non-cumulative variation between tape feed holes shall not exceed 1 mm in 20 pitches.
3. Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.
4. There will be no more than three (3) consecutive missing components in a tape.
5. A tape trailer, having at least three feed holes are provided after the last component in a tape.
6. Splices should 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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CDIL is a registered Trademark of
Continental Device India Limited

C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com