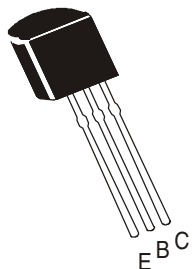


SILICON PLANAR EPITAXIAL TRANSISTORS



CN8050 NPN
CN8550 PNP

TO-92
Plastic Package

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Emitter Voltage	V_{CEO}	25	V
Collector Base Voltage	V_{CBO}	40	V
Emitter Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	800	mA
Peak Collector Current	I_{CM}	1.0	A
Base Current	I_B	100	mA
Power Dissipation@ $T_a=25^\circ\text{C}$	$*P_{tot}$	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to +150	$^\circ\text{C}$

THERMAL RESISTANCE

Junction to Ambient in free air	$*R_{th(j-a)}$	200	K/W
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* Valid provided that leads are kept at ambient temperature at a distance of 2mm from case.

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

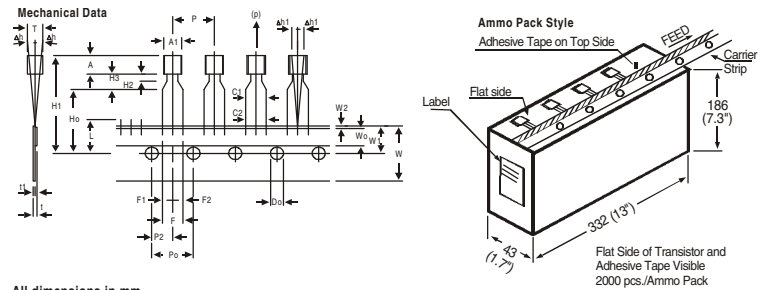
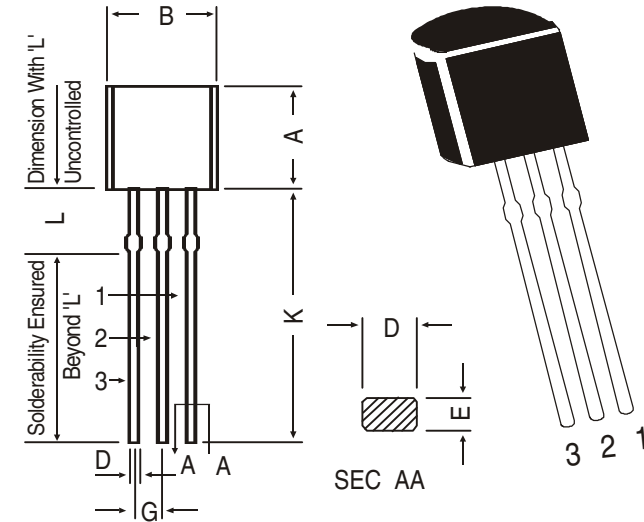
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Emitter Voltage	V_{CEO}	$I_C=2\text{mA}, I_B=0$	25			V
Collector Base Voltage	V_{CBO}	$I_C=10\mu\text{A}, I_E=0$	40			V
Emitter Base Voltage	V_{EBO}	$I_E=100\mu\text{A}, I_C=0$	6			V
DC Current Gain	h_{FE}	$V_{CE}=1\text{V}, I_C=5\text{mA}$	45			
		$V_{CE}=1\text{V}, I_C=100\text{mA}$	120		300	
		CN8050C/CN8550C	120		200	
		CN8050D/CN8550D	160		300	
		$V_{CE}=1\text{V}, I_C=350\text{mA}$	60			
Collector Cut off Current	I_{CBO}	$V_{CB}=35\text{V}, I_E=0$			100	nA
Emitter Cut off Current	I_{EBO}	$V_{BE}=3\text{V}, I_C=0$			100	nA
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			0.5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			1.2	V
Gain Bandwidth Product	f_T	$I_C=10\text{mA}, V_{CE}=5\text{V}, f=50\text{MHz}$		100		MHz
Collector Base Capacitance	C_{cbo}	$V_{CB}=10\text{V}, f=1\text{MHz}$			35	pF
		PNP NPN			20	pF

CN8050 NPN
CN8550 PNP

TO-92
Plastic Package

TO-92 Plastic Package

TO-92 Transistors on Tape and Ammo Pack



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	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 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

- Maximum alignment deviation between leads will not to be greater than 0.2mm.
- Maximum non-cumulative variation between tape feed holes shall not exceed 1 mm in 20 pitches.
- Holddown tape will not exceed beyond the edge(s) of carrier tape and there shall be no exposure of adhesive.
- There will be no more than three (3) consecutive missing components in a tape.
- A tape trailer, having at least three feed holes are provided after the last component in a tape.
- Splices should not interfere with the sprocket feed holes.

PIN CONFIGURATION

1. COLLECTOR
2. BASE
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.

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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