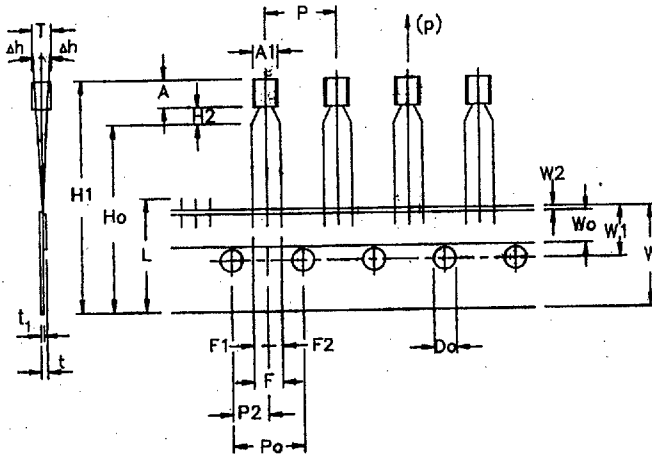


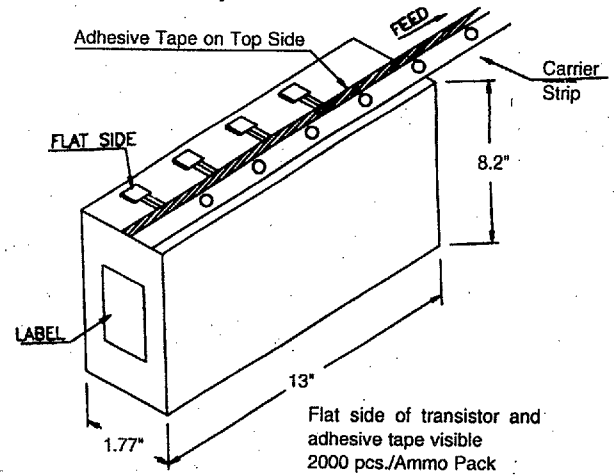
Maximum Ratings						Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																			
Type No.	V _{CBO} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CBO} (μA) Max	V _{CB} (V) @ I _C	I _{CES} (μA) Max	V _{CE} (V) @ I _{CES}	h _{FE} @ I _C & V _{CE}	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Max	I _C (mA)	C _{ob} (pF) Typ	f _T (MHz) Min	t _{off} (ns) Max	N _F (dB) Max	@ Freq (MHz)	C _{es} (pF) Max	CDIL Case Style					
CN303	45	45	5	0.3		0.2	45			50 300 10 6	0.35	0.65	1.0 10	6	150						TO-92				
CN304	70	70	5	0.3		0.2	70			50 300 10 6	0.35	0.65	1.0 10	6	150						TO-92				
CN450	60	45	5	0.75	1	0.1	45			100 300 150 10 15 1000 10	0.25		1.1 150	15	150						TO-92				
CN451	80	60	5	0.75	1	0.1	60			50 150 150 10 10 1000 10	0.35		1.1 150	15	150						TO-92				
CN452	100	80	5	0.75	1	0.1	80			40 150 150 10 10 1000 10	0.7		1.3 150	15	150						TO-92				
CN453	120	100	5	0.75	1	0.1	100			40 200 150 10 10 1000 10	0.7		1.3 150	15	150						TO-92				
CN454	140	120	5	0.75	1	0.1	120			100 300 150 10 30 200 1	0.7		150 200	15	100						TO-92				
CN455	160	140	5	0.75	1	0.1	140			100 300 150 10	0.7		150	15	100						TO-92				
CN649	35	25	5	0.75	2	0.1	30			70 50 2 100 300 1000 2 75 2000 2 10 6000 2	0.3 0.6	1.25 1000 2000	50	150							TO-92				
CN650	60	45	5	0.75	2	0.1	45			70 50 2 100 300 500 2 80 1000 2 40 2000 2	0.3 0.5	1.25 1000 2000	30	140							TO-92				
CN651	80	60	5	0.75	2	0.1	60			70 50 2 100 300 500 2 80 1000 2 40 2000 2	0.3 0.5	1.25 1000 2000	30	140							TO-92				
CN652	100	80	5	0.75	2	0.1	80			70 50 2 100 300 500 2 55 1000 2 25 2000 2	0.3 0.5	1.25 1000 2000	30	140							TO-92				
CN653	120	100	5	0.75	2	0.1	100			70 50 2 100 300 500 2 55 1000 2 25 2000 2	0.3 0.5	1.25 1000 2000	30	140							TO-92				
CN654	125	125	5	0.75	1	0.1	100			50 10 5 50 500 5 20 1000 5	0.5 0.5	1.1 500 1000	20	30							TO-92				
CN655	150	150	5	0.75	1	0.1	125			50 10 5 50 500 5 20 1000 5	0.5 0.5	1.1 500 1000	20	30							TO-92				
CN656	200	200	5	0.75	0.5	0.1	160			40 10 5 50 100 5	0.5	1.0 100	20	30							TO-92				
CN657	300	300	5	0.75	0.5	0.1	200			40 10 5 50 100 5	0.5	1.0 100	20	30							TO-92				
CSC383TM	50	45	4	0.3	0.05	0.1	50			20 100 12.5 12.5	0.2	1.5 15	2	300							TO-92-1				
CSC388ATM	30	25	4	0.3	0.05	0.1	30			20 200 12.5 12.5	0.2	1.5 15	2	300							TO-92-1				
CSC458	30	30	5	0.2	0.1	0.5	18			100 500 2 12	0.2		10	3.5			10	0.001			TO-92-1				

TO-92 Taping Details

MECHANICAL DATA



Ammo Pack Style



Item	Symbol	Specification				Remarks
		Min.	Nom.	Max.	Tol.	
Body Width	A1	4.0		4.8		Cumulative Pitch Error 1.0 mm/20 Pitch To be measured at bottom of Clinch
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	
Feed Hole Centre to Component Centre	P2		6.35		±0.4	At Top of Body
Distance between Outer Leads	F		5.08		±0.6	
Component Alignment	Δh		0	1	-0.2	
Tape Width	W		18		±0.5	
Hold-Down Tape Width	Wo		6		±0.2	
Hole Position	W1		9		±0.7	t ₁ 0.3-0.6
Hold-Down Tape Position	W2		0.5		±0.2	
Lead Wire Clinch Height	Ho		16		±0.5	
Component Height	H1			32.25		
Length of Snipped leads	L			11.0		
Feed Hole Diameter	Do		4		±0.2	
Total Tape Thickness	t			1.2		
Lead-to-Lead Distance	F1, F2		2.54		+0.4 -0.1	
Clinch Height	H2			3		
Pull-out Force	(p)	6N				

Dimensions in m.m.

Notes:

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