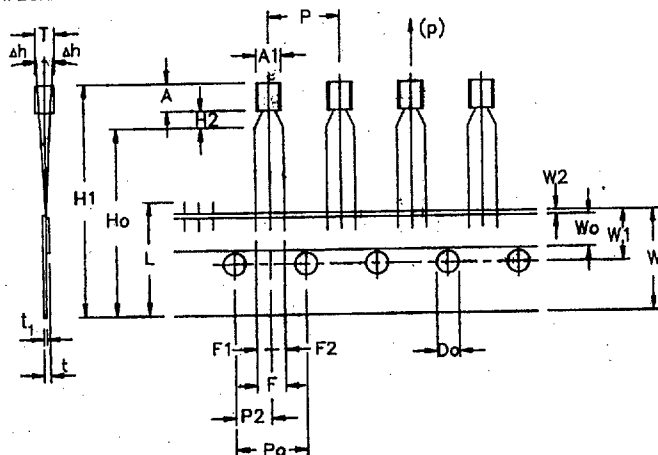


TO-92 Plastic Package Transistors (NPN)

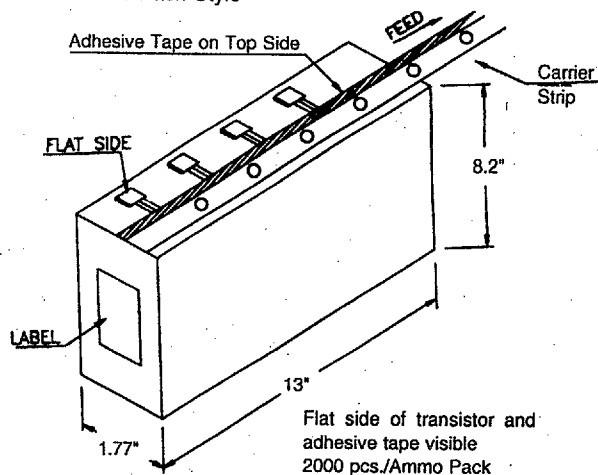
CDIL

Maximum Ratings						Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																
Type No.	V _{CBO} (V) Min	V _{CEO} (V) Min	V _{EBO} (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} Min Max	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Max	I _C (mA) @ V _{CE}	C _{ob} (pF) Typ Max	f _T (MHz) Min Typ Max	t _{off} (ns) Max	N _F (dB) Max	@ Freq (MHz)	C _{iss} (pF) Max	CDIL Case Style		
CD9014D1	50	50	5	0.625	0.1	0.05	50			400 630 1 5	0.3	1	100	3.5	125	10		4 0.001		TO-92		
CD9014D2	50	50	5	0.625	0.1	0.05	50			570 840 1 5	0.3	1	100	3.5	125	10		4 0.001		TO-92		
CD9014D3	50	50	5	0.625	0.1	0.05	50			760 1000 1 5	0.3	1	100	3.5	125	10		4 0.001		TO-92		
CD9014E	50	50	5	0.625	0.1	0.05	50			800 1 5	0.3	1	100	3.5	125	10		4 0.001		TO-92		
CD9016	30	20	4	0.4	0.03	0.1	30			28 198 1 5	0.3		10	1.2 1.6	400 620	1		5		TO-92		
CD9016D	30	20	4	0.4	0.03	0.1	30			28 45 1 10	0.3		10	1.2 1.6	400 620	1		5		TO-92		
CD9016E	30	20	4	0.4	0.03	0.1	30			39 60 1 10	0.3		10	1.2 1.6	400 620	1		5		TO-92		
CD9016F	30	20	4	0.4	0.03	0.1	30			54 80 1 10	0.3		10	1.2 1.6	400 620	1		5		TO-92		
CD9016G	30	20	4	0.4	0.03	0.1	30			72 108 1 5	0.3		10	1.2 1.6	400 620	1		5		TO-92		
CD9016H	30	20	4	0.4	0.03	0.1	30			97 146 1 10	0.3		10	1.2 1.6	400 620	1		5		TO-92		
CD9016I	30	20	4	0.4	0.03	0.1	30			132 198 1 5	0.3		10	1.2 1.6	400 620	1		5		TO-92		
CD9018	30	15	5	0.4	0.03	0.05	15			29 273 1 5	0.5		10	1.7	600	5	5 60		TO-92			
CD9018D	30	15	5	0.4	0.03	0.05	15			28 45 1 5	0.5		10	1.7	600	5	5 60		TO-92			
CD9018E	30	15	5	0.4	0.03	0.05	15			39 60 1 5	0.5		10	1.7	600	5	5 60		TO-92			
CD9018F	30	15	5	0.4	0.03	0.05	15			54 80 1 5	0.5		10	1.7	600	5	5 60		TO-92			
CD9018G	30	15	5	0.4	0.03	0.05	15			72 108 1 5	0.5		10	1.7	600	5	5 60		TO-92			
CD9018H	30	15	5	0.4	0.03	0.05	15			97 146 1 5	0.5		10	1.7	600	5	5 60		TO-92			
CD9018I	30	15	5	0.4	0.03	0.05	15			132 198 1 5	0.5		10	1.7	600	5	5 60		TO-92			
CD9018J	30	15	5	0.4	0.03	0.05	15			182 273 1 5	0.5		10	1.7	600	5	5 60		TO-92			
CDN368	25	20	5	0.625	1	0.05	25			50 5 10 85 375 500 1 60 1000 1	0.2		1000						TO-92			
CIL187	25	15	6	0.625	0.7	10	25			70 5 10 100 300 300 1 50 1000 1	0.5		1000						TO-92-4			
CIL368	25	20	5	0.625	1	10	25			50 5 10 85 375 500 1 60 1000 1	0.5		1000	27	60	10			TO-92			
CN1	12	12	5	0.4	0.15	1	10			50 700 2 5	0.25 0.65		10 100						TO-92-4			
CN300	25	25	5	0.3		0.2	25			50 300 10 6	0.35	0.65 1.0	50 10	6	150	10			TO-92			
CN301	35	35	5	0.3		0.2	35			50 300 10 6	0.25	0.65 1.0	50 10	6	150	10			TO-92			
CN302	35	35	5	0.3		0.2	35			20 0.1 6 100 300 10 6 50 50 6	0.25	0.65 1.0	50 10	6	150	10			TO-92			

MECHANICAL DATA



Ammo Pack Style



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 To be measured at bottom of Clinch
Feed Hole Centre to Component Centre	P2		6.35		±0.4	
Distance between Outer Leads	F		5.08		±0.6	
Component Alignment	Δh		0	1	-0.2	At Top of Body
Tape Width	W		18		±0.5	
Hold-Down Tape Width	Wo		6		±0.2	
Hole Position	W1		9		±0.7	
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		t ₁ 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				

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.