

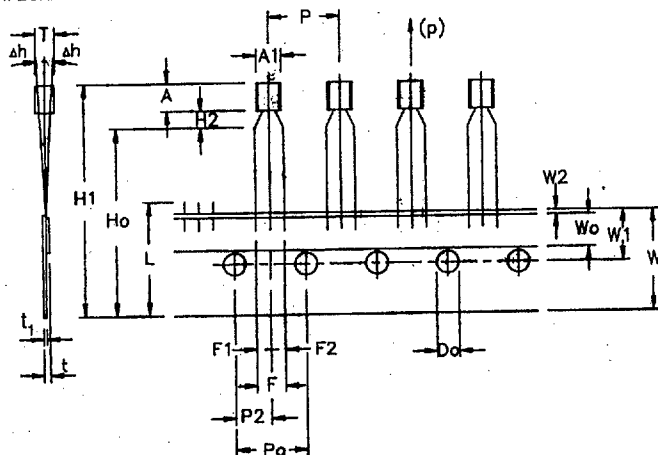
TO-92 Plastic Package Transistors (NPN)

CDIL

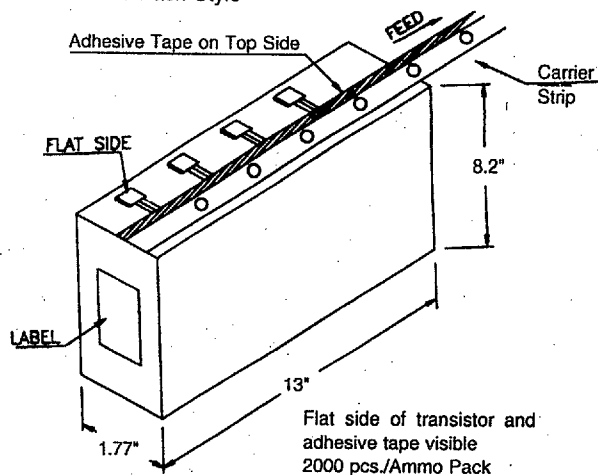
Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																		
Type No.	V _{CBO} (V) Min	V _{CEO} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CBO} (μA) Max	V _{CB} (V) @ I _C	I _{CES} (μA) Max	V _{CE} (V) @ I _C	h _{FE} @ I _C & V _{CE}	V _{CE(SAT)} (V) Max	V _{BE(SAT)} (V) Max	I _C (mA)	C _{ob} (pF) Typ	f _T (MHz) Min	t _{on} (ns) Max	N _F (dB) Max	Q Freq (MHz)	C _{re} (pF) Max	CDIL Case Style					
2N3693	45	45	4	0.625	0.5	0.05	35			40 160 10 10				3.5	200			4		TO-92					
2N3694	45	45	4	0.625	0.5	0.05	35			100 400 10 10				3.5	200			4		TO-92					
2N3704	50	30	5	0.625	0.6	0.1	20			100 300 50 2	0.6		100	12	100					TO-92-1					
2N3705	50	30	5	0.625	0.6	0.1	20			50 150 50 2	0.8		100	12	100					TO-92-1					
2N3708	30	30	6	0.625	0.25	0.1	20			45 660 1 5	1		10							TO-92-1					
2N3709		30		0.625	0.25	0.1	20			45 165 1 5	1		10							TO-92-1					
2N3710	30	30	6	0.625	0.25	0.1	20			90 330 1 5	1		10							TO-92-1					
#2N3721	18	18	5	0.625	0.1	0.5	18			60 660 2 10				12						TO-92-1					
2N3794	40	20	5	0.625	0.6	0.5	15			100 100 10 10 100 600 10 10 35 1 10	0.4		10	10	100	600 10				TO-92-1					
2N3825	30	15	4	0.625	0.1	0.1	15			20 2 10	0.25		2	3.5	200	800 2	5.5 1			TO-92-1					
2N3827	60	45	4	0.625	0.5	0.1	30			100 400 10 10				3.5	200	800 10				TO-92-1					
2N3858	30	30	4	0.625	0.1	0.5	18			60 120 2 4.5				4	90	250 2				TO-92-1					
2N3858A	60	60	6	0.625	0.05	0.5	18			60 120 10 1 45 1 1				4	90	250 2				TO-92-1					
2N3859	30	30	4	0.625	0.1	0.5	18			100 200 2 4.5				4	90	250 2				TO-92-1					
2N3860	30	30	4	0.625	0.1	0.5	18			150 300 2 4.5				4	90	250 2				TO-92-1					
2N3877	70	70	4	0.625	0.05	0.5	70			20 250 2 4.5		0.5 0.9 10								TO-92-1					
2N3877A	85	85	4	0.625	0.05	0.5	70			20 250 2 4.5		0.5 0.9 10								TO-92-1					
2N3900	18	18	5	0.625	0.1	0.1	18			250 500 2 4.5					12					TO-92-1					
2N3900A	18	18	5	0.625	0.05	0.1	18			250 500 2 4.5					12		5			TO-92-1					
2N3901	18	18	5	0.625	0.05	0.1	15			350 700 2 4.5							5			TO-92-1					
2N3903	60	40	6	0.625	0.2			*0.05 30		20 0.1 1 35 1 1 50 150 10 1 30 50 1 15 100 1	0.2 0.65 0.85 10 0.3 0.95 50		4	250	10	6			TO-92						
2N3904	60	40	6	0.625	0.2			*0.05 30		40 0.1 1 70 1 1 100 300 10 1 60 50 1 30 100 1	0.2 0.65 0.85 10 0.3 0.95 50		4	300	10	5			TO-92						
2N4286	30	25	6	0.625	0.05	0.05	25	0.4 20		150 600 1 5 100 0.1 5	0.35 0.8 1		6	40	1					TO-92-1					
2N4287	45	45	7	0.625	0.05	0.01	30			150 600 1 5 100 0.1 5	0.35 0.8 1		6	40	1	5				TO-92-1					
2N4292	30	15	3	0.625	0.05	0.5	15			20 3 1	0.6 10		3.5	600	4	6 60				TO-92-1					
2N4293	30	15	3	0.625	0.05	0.5	15			20 3 1	0.6 10		3.5	600	4	6 60				TO-92-1					

NOTE : HFE values are hfe(min) & hfe(max) at 1.00 kHz * I_{CEX}

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	W _o		6		± 0.2	
Hole Position	W ₁		9		± 0.7	t_1 0.3-0.6
Hold-Down Tape Position	W ₂		0.5		± 0.2	
Lead Wire Clinch Height	H _o		16		± 0.5	
Component Height	H ₁			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	F ₁ , F ₂		2.54		± 0.4 -0.1	
Clinch Height	H ₂			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.