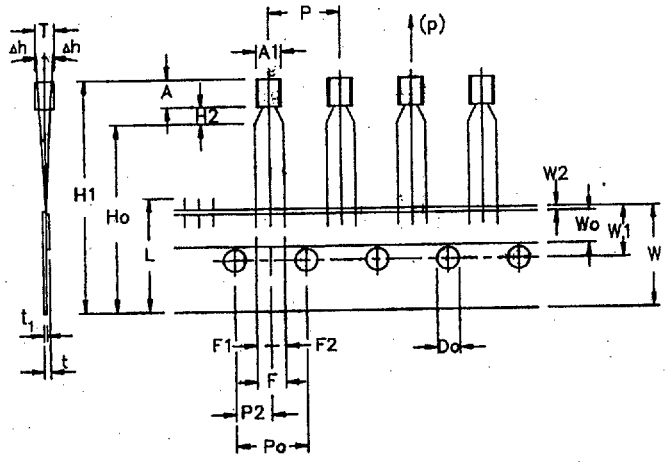
TO-92 Plastic Package Transistors (NPN)

CDIL

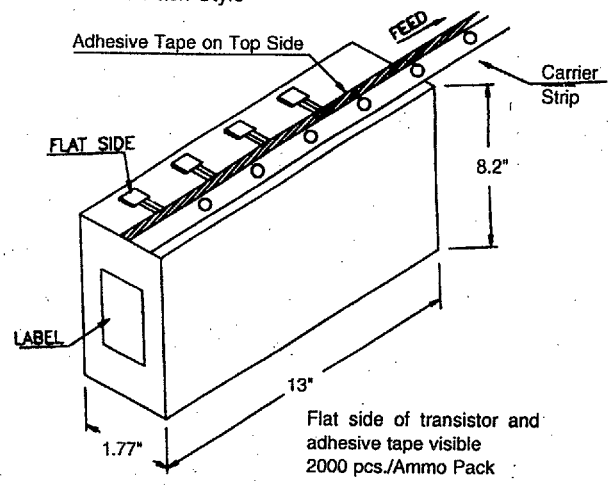
Maximum Ratings						Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																									
Type No.	V_{CBO} (V) Min	V_{CEO} (V) Min	V_{EBO} (V) Min	P_D (W) @Tc=25°C	I_C (A)	I_{CBO} (µA) Max	V_{CB} @ (V)	I_{CES} (µA) Max	V_{CE} @ (V)	h_{FE} @ Min	Max	I_C & (mA)	V_{CE} (V)	$V_{CE(SAT)}$ (V) Max	Min	$V_{BE(SAT)}$ (V) Max	I_C @ (mA)	C_{ob} (pF) Typ	Max	f_t (MHz) Min	Typ	@ Max	I_C (mA)	$t_{(off)}$ (ns) Max	N_F (dB) Max	@ Freq (MHz)	C_{re} (pF) Max	CDIL Case Style
PN5131	20	15	3	0.625	0.1	0.05	10			35	500	10	1	1			10		6	100			10					TO-92
PN5132	20	20	3	0.625	0.1	0.05	10			30	400	10	10	2		0.9	10		3.5	200			10					TO-92
PN5133	20	18	3	0.625	0.05	0.05	15			60	1000	1	5	0.4			1		5	40		240	1					TO-92
PN5135	30	25	4	0.625	0.5	0.3	15			50	60	10	10	1		1	100		25	2		15	30					TO-92
										15		2	10															
PN5136	30	20	3	0.6	0.5	0.1	20			20	400	150	1	0.25		1.1	150		35	2		20	50					TO-92
										20		30	1															
PN5137	30	20	3	0.6	0.5	0.1	20			20	400	150	1	0.25		1.1	150		35	2		20	50					TO-92
										20		30	1															
PN5179	20	15	3	0.35		0.002	15			25	250	3	1	0.4		1	10		1	900		2000	5		4.5	200		TO-92-3
PN5449	50	30	5	0.625	0.6	0.1	20			100	300	50	2	0.6			100			100			50					TO-92
PN5816	50	40	5	0.625	0.6	0.1	25			100	200	2	2	0.75		1.2	500			100			50					TO-92
PN7055	220	220	7	0.625	0.5	0.1	150			20		1	20	1		0.85	20		3.5	50			15					TO-92
										40		10	20															
										40		30	20															
TIS86	30	30		0.35	0.1	0.1	15			40	200	4	10	0.5			15		0.5	500			4		5	200		TO-92-2
TIS87	45	45		0.35	0.1	0.1	15			30	150	12	12	0.5			15		0.5	500			12					TO-92-2
TIS90	40	40	5	0.625	0.6	0.1	20			100	300	50	2	0.25	0.6	1	50											TO-92-1
TIS92	40	40	5	0.625	0.6	0.1	20			100	300	50	2	0.25	0.6	1	50											TO-92-4
TIS97		40		0.625	0.1	0.01	40			250	700	0.1	5												3			TO-92-4
TIS98		60		0.625	0.05	0.01	40			100	300	1	5	0.5			100			2			10					TO-92-4
TIS99		65		0.625	0.5	0.01	40			55	300	100	5	0.5			100			2			10					TO-92-4

TO-92 Taping Details

MECHANICAL DATA



Ammo Pack Style



Flat side of transistor and adhesive tape visible
2000 pcs./Ammo Pack

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
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	Δh		0	1		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:

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