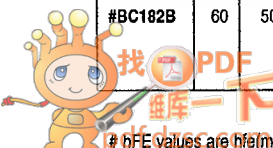




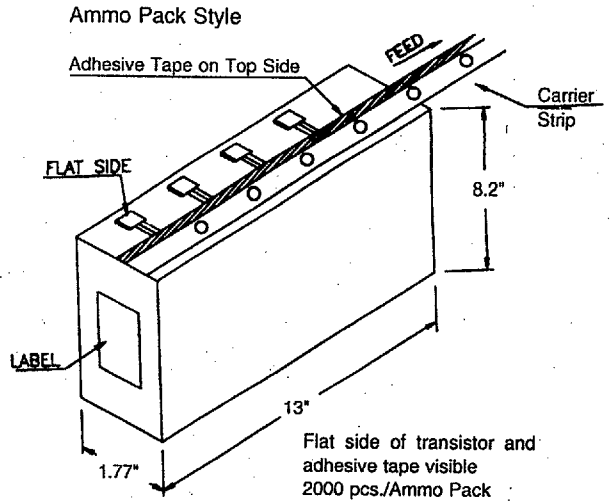
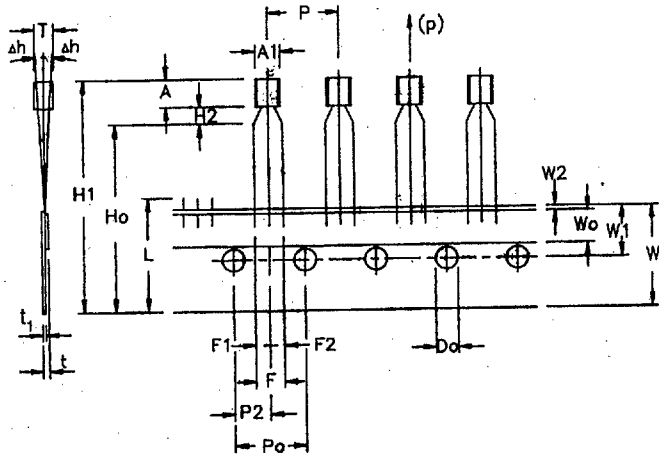
TO-92 Plastic Package Transistors (NPN)

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																			
Type No.	V _{CB0} (V)	V _{CEO} (V)	V _{EBO} (V)	P _D (W)	I _C (A)	I _{CB0} (μA)	V _{CB} (V)	I _{CES} (μA)	V _{CE} (V)	h _{FE} @ I _C & V _{CE}		V _{CE(SAT)}		V _{BE(SAT)}	I _C	C _{ob}	f _i			t _{on}	N _F	Freq	C _{re}	CDIL Case Style		
	Min	Min	Min	@Tc=25°C	Max	Max	Max	Max	Min	Max	Min	Max	Max	Min	Max	Typ	Max	Min	Typ	Max	Max	Max	(MHz)	Max		
2N6515	250	250	6	0.625	0.5	0.05	150			35	1	10	0.3	0.75	10	6	40	200	10	3.5					TO-92	
										50	10	10	0.35	0.85	20											
										50	300	30	10	0.5	0.9											30
										45	220	50	10	1	50											
										25	100	10														
2N6516	300	300	6	0.625	0.5	0.05	200			30	1	10	0.3	0.75	10	6	40	200	10	3.5					TO-92	
										45	10	10	0.35	0.85	20											
										45	270	30	10	0.5	0.9											30
										40	200	50	10	1	50											
										20	100	10														
2N6517	350	350	6	0.625	0.5	0.05	250			20	1	10	0.3	0.75	10	6	40	200	10	3.5					TO-92	
										30	10	10	0.35	0.85	20											
										30	200	30	10	0.5	0.9											30
										20	200	50	10	1	50											
										15	100	10														
BC168	30	20	5	0.3	0.1			0.015	30	120	800	2	5	0.6	1.05	100	3.5	6	150	250	10	10			TO-92-1	
BC168B	30	20	5	0.3	0.1			0.015	30	180	460	2	5	0.6	1.05	100	3.5	6	150	250	10	10			TO-92-1	
BC170	20	20	5	0.3	0.1	0.1	15			35	600	1	1	0.25	0.7	1	4		100	10					TO-92-4	
BC170A	20	20	5	0.3	0.1	0.1	15			35	100	1	1	0.25	0.7	1	4		100	10	10					TO-92-4
										30	30	1	1	0.4	30											
BC170B	20	20	5	0.3	0.1	0.1	15			80	250	1	1	0.25	0.7	1	4		100	10	10					TO-92-4
										60	30	1	1	0.4	30											
BC170C	20	20	5	0.3	0.1	0.1	15			200	600	1	1	0.25	0.7	1	4		100	10	10					TO-92-4
										150	30	1	1	0.4	30											
BC172	30	25	6	0.35	0.1			0.015	35	120	800	2	5	0.25	10	100	4.5	150	10	10	100					TO-92-4
														0.6	100											
BC172A	30	25	6	0.35	0.1			0.015	35	120	220	2	5	0.25	10	100	4.5	150	10	10	100					TO-92-4
														0.6	100											
BC172C	30	25	6	0.35	0.1			0.015	35	380	800	2	5	0.25	10	100	4.5	150	10	10	100					TO-92-4
														0.6	100											
BC174	80	65	6	0.35	0.1			0.015	70	120	450	2	5	0.25	10	100	4.5	150	10	10	100					TO-92-4
														0.6	100											
BC174B	80	65	6	0.35	0.1			0.015	70	180	460	2	5	0.25	10	100	4.5	150	10	10	100					TO-92-4
														0.6	100											
#BC182	60	50	6	0.35	0.1	0.015	50			40	0.01	5	0.6	1.2	100	5	150	10	10	0.001					TO-92-4	
										80	100	5	0.25	10												
										120	500	2	5													
#BC182A	60	50	6	0.35	0.1	0.015	50			40	0.01	5	0.25	10	5	150	10	10	0.001					TO-92-4		
										120	260	2	5	0.6	1.2	100										
										80	100	5														
#BC182B	60	50	6	0.35	0.1	0.015	50			40	0.01	5	0.25	10	5	150	200	10	4					TO-92-4		
										80	100	5	0.6	1.2	100											
										240	500	2	5													

hFE values are hFE(min) & hFE(max) at 100 KHz.



MECHANICAL DATA



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	
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:

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.