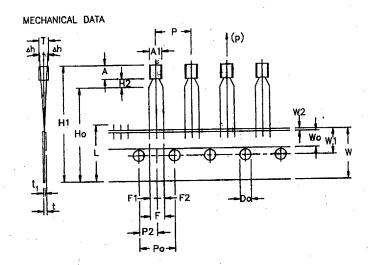
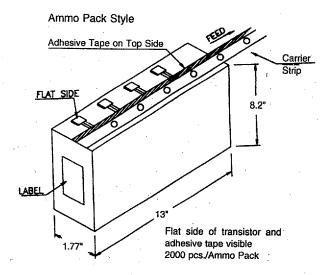
## TO-92 Plastic Package Transistors (NPN)

Maximum Ratings						<u> </u>								·El	Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)													
Type No.	V <sub>CBO</sub> (V)		V <sub>EBO</sub> (V) Min	P <sub>D</sub> (W) @Tc≃25°d	I <sub>C</sub> (A)	I <sub>CBO</sub> (µA) Max	V <sub>CB</sub> @ (V)	I <sub>CES</sub> (μΑ) Max	V <sub>CE</sub> @ (V)		@ Max	I <sub>C</sub> & (mA)	V <sub>CE</sub> (V)	V <sub>CE(SAT)</sub> (V) Max Mi	V <sub>BE(S</sub>	νη, <sup>Π</sup> Θ (			-	f, (MH		@ Max	I <sub>C</sub> (mA)	t <sub>(off)</sub> (ns) Max	N <sub>F</sub> (dB) Max	@ Freq (MHz)	C <sub>re</sub> (pF) Max	
2N6515	250	250	6	0.625	0.5	0.05	150			35 50 50 45 25	300 220	1 10 30 50	10 10 10 10 10	0.3 0.35 0.5 1	, (	.9	10 20 30 50		6	40		200	10	3.5				TO-92
2N6516	300	300	6	0.625	0.5	0.05	200			30 45 45 40 20	270 200	1 10 30 50 100	10 10 10 10 10	0.3 0.35 0.5	(	).9	10 20 30 50	٠	6	40		200	10	3.5		•		TO-92
2N6517	350	350	6	0.625	0.5	0.05	.250			20 30 30 20 15	200 200	1 10 30 50 100	10 10 10 10 10	0.3 0.35 0.5 1	(				6	40		200	10	3.5				TO-92
BC168	30	20	5	0.3	0.1			0.015	5 30	120	800	2	5	0.6 0.2		1.05 1 ).83		3.5	6	150	250		10		10			TO-92-1
BC168B	30	20	5	0.3	0.1			0.015	5 30	180	460	. 2	5	0.6 0.2		1.05 1 ).83		3.5	6	150	250		10		10			TO-92-1
BC170	20	20	5	0.3	0.1	0.1	15		٠	35	600	1	1	0.25 0.4	(		1 30	4			100		10				•	TO-92-4
BC170A	20	20	5	0.3	0.1	0.1	15			35 30	100	1 30	1	0.25 0.4	(	).7	1 30	4			100		10		10			TO-92-4
BC170B	20	20	5	0.3	0.1	0.1	15			80 60	250	1 30	1	0.25 0,4	(	).7	1 30	.4		-	100		10		10			TO-92-4
BC170C	20	20	5	0.3	0.1	0.1	15			200 150	600	1 30	1	0.25 0.4		).7	1 30	4			100		10		10			TO-92-4
BC172	30	25	6	0.35	0.1			0.01	5 35	120	800	2	5	0.25 0.6			10 00		4.5	150			10		10	100		TO-92-4
BC172A	30	25	6	0.35	0.1			0.01	5 35	120	220		5	0.25 0.6			10 100		4.5	150			10		10	100		TO-92-4
BC172C	30	25	6	0.35	0.1			0.01	5 35	380	800	2	5	0.25 0.6			10 100		4.5	150			10		10	100		TO-92-4
BC174	80	65	6	0.35	0.1			0.01	5 70	120	450	2	5	0.25 0.6			10 100		4.5	150			10		10.	100		TO-92-4
BC174B	80	65	6	0.35	0.1			0.01	5 70	180	460	2	5	0.25 0.6			10 100		4.5	150			10		10	100		TO-92-4
#BC182	60	50	6	0.35	0.1	0.01	5 50			40 80 120	500	0.0 100 2	)i 5 5 5	0.6 0.25		1.2 1	100 10		5	150	•		10		10	0.00		TO-92-4
#BC182A	60	50	6	0.35	0.1	0.01	5 50	-		40 120 80	260	0.0 2 100	01 5 5 5	0.25 0.6		1.2 1	10 100		5	150			10		10	0.00		TO-92-4
#BC182B	60	50	6	0.35	0.1	0.01	5 50			40 80 240	500	0.0 100 2	01 5 5 5	0.25 0.6		1.2 1	10 100		5	150	200		10		4	٠		TO-92-4

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





Item	Symbol		Specifi	Remarks				
		Min.	Nom.	Max.	Tol.			
Body Width	A1	4,0		4,8				
Body Height	Α	4,8.		5,2				
Body Thickness	T	3.9		4.2		•		
Pitch of Component	P		12.7		±1			
Feed Hole Pitch	Ро		12.7		±0.3	Cumulative Pitch Error 1.0 mm/20 Pitch		
Feed Hole Centre to		,		•		To be measured at		
Component Centre	P2		6.35		±0.4	bottom of Clinch		
Distance between Outer	1	*			±0.6	•		
Leads	F		5.08	• ,	-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, 0.3-0.6		
Lead-to-Lead Distance	F1,F2		2.54		+0.4	1 0.0 0.0		
Clinah Haisht	110				-0.1			
Clinch Height	H2			3				
Pull-out Force	(p)	6N		**				

## 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.
- Splices shall not interfere with the sprocket feed holes.

Dimensions in m.m.