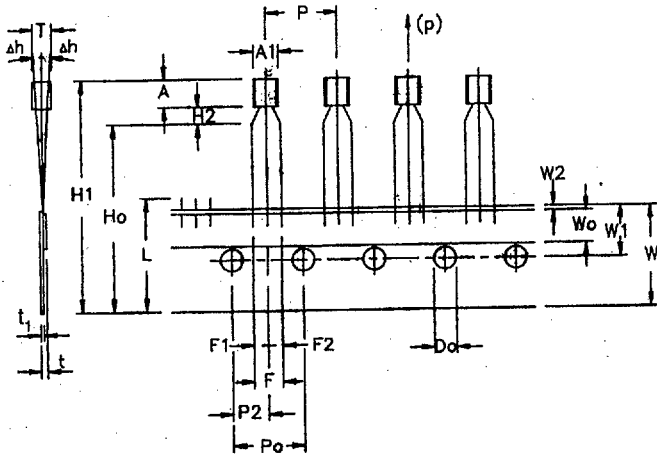


TO-92 Plastic Package Transistors (NPN)

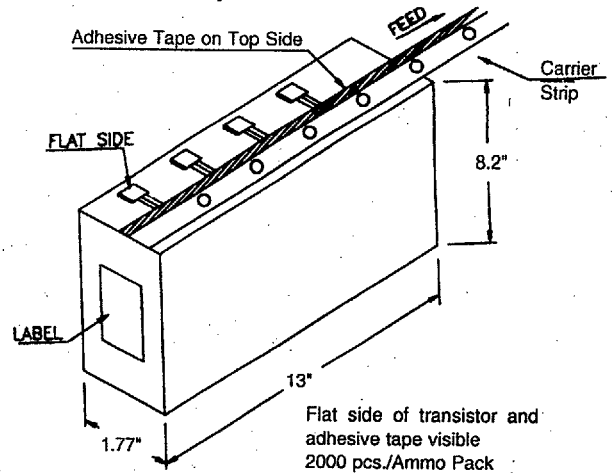


Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																			
Type No.	V _{CB0} (V)	V _{CEO} (V)	V _{EB0} (V)	P _D (W)	I _C (A)	I _{CB0} (μA)	V _{CB} (V)	I _{CES} (μA)	V _{CE} (V)	h _{FE} @		I _C & V _{CE}	V _{CE(SAT)} (V)		V _{BE(SAT)} (V)	I _C (mA)	C _{ob} (pF)		f _t (MHz)		I _C (mA)	t _{on} (ns)	N _F (dB)	@ Freq (MHz)	C _{rs} (pF)	CDIL Case Style
	Min	Min	Min	@ Tc=25°C	Max	Max	Max	Max	Max	Min	Max	(mA) (V)	Max	Min	Max	Max	Typ	Max	Min	Typ	Max	Max	Max	Max	Max	
CSC1684Q	30	25	7	0.4	0.1	1	10			160	260	2 10	0.5		100	3.5		150		2						TO-92-1
CSC1684R	30	25	7	0.4	0.1	1	10			200	340	2 10	0.5		100	3.5		150		2						TO-92-1
CSC1684S	30	25	7	0.4	0.1	1	10			290	460	2 10	0.5		100	3.5		150		2						TO-92-1
CSC1685	60	50	7	0.4	0.1	1	10			160	460	2 10	0.5		100	3.5		150		2						TO-92-1
CSC1685Q	60	50	7	0.4	0.1	1	10			160	260	2 10	0.5		100	3.5		150		2						TO-92-1
CSC1685R	60	50	7	0.4	0.1	1	10			200	340	2 10	0.5		100	3.5		150		2						TO-92-1
CSC1685S	60	50	7	0.4	0.1	1	10			290	460	2 10	0.5		100	3.5		150		2						TO-92-1
CSC1730	30	15	5	0.25	0.05	0.1	12			40	240	5 10	0.5		10	1.5	800		5							TO-92-1
CSC1730O	30	15	5	0.25	0.05	0.1	12			70	240	5 10	0.5		10	1.5	800		5							TO-92-1
CSC1730R	30	15	5	0.25	0.05	0.1	12			40	80	5 10	0.5		10	1.5	800		5							TO-92-1
CSC1730Y	30	15	5	0.25	0.05	0.1	12			120	240	5 10	0.5		10	1.5	800		5							TO-92-1
CSC1740	50	40	5	0.3	0.1	0.5	30			120	820	1 6	0.4	1	50	2	3.5	180		2			10			TO-92-1
CSC1740S	50	40	5	0.3	0.1	0.5	30			270	560	1 6	0.4	1	50	2	3.5	180		2			10			TO-92-1
CSC1815	60	50	5	0.4	0.15	0.1	60			70	700	2 6	0.25	1	100	3.0	80		1				10	0.001		TO-92-1
CSC1815BL	60	50	5	0.4	0.15	0.1	60			350	700	2 6	0.25	1	100	3.0	80		20				10	0.001		TO-92-1
CSC1815GR	60	50	5	0.4	0.15	0.1	60			200	400	2 6	0.25	1	100	3	80		1				10	0.001		TO-92-1
CSC1815O	60	50	5	0.4	0.15	0.1	60			70	140	2 6	0.25	1	100	3	80		1				10	0.001		TO-92-1
CSC1815Y	60	50	5	0.4	0.15	0.1	60			120	240	2 6	0.25	1	100	3	80		1				10	0.001		TO-92-1
CSC1906	30	19	2	0.3	0.05	0.5	10			40		10 10	1		20	1.2	600 1000		10							TO-92-1
CSC1906Y	30	19	2	0.3	0.05	0.5	10			120	240	10 10	1		20	1.2	600 1000		10							TO-92-1
CSC1959	35	30	5	0.5	0.5	0.1	35			70	240	100 1	0.25		100	7		300		20						TO-92-1
CSC1959O	35	30	5	0.5	0.5	0.1	35			70	140	100 1	0.25		100	7		300		20						TO-92-1
CSC1959Y	35	30	5	0.5	0.5	0.1	35			120	240	100 1	0.25		100	7		300		20						TO-92-1
CSC2002	60	60	5	0.5	0.3	0.1	60			90	400	50 1	0.6		1.2 300	7	15	50 140		10						TO-92-1
CSC2002K	60	60	5	0.5	0.3	0.1	60			200	400	50 1	0.6		1.2 300	7	15	50 140		10						TO-92-1
CSC2002L	60	60	5	0.5	0.3	0.1	60			135	270	50 1	0.6		1.2 300	7	15	50 140		10						TO-92-1

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		
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	W0		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		At Top of Body	
Length of Snipped leads	L			11.0			
Feed Hole Diameter	Do		4		±0.2		
Total Tape Thickness	t			1.2			
Lead-to-Lead Distance	F1,F2		2.54		±0.2		
Clinch Height	H2			3			
Pull-out Force	(p)	6N					
							t ₁ 0.3-0.6

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.