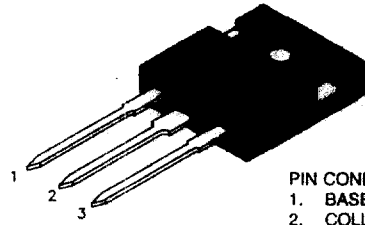


DIM	MIN.	MAX.
A	17.75	18.25
B	5.2	5.7
C	3.8	4.2
D	∅ 1.9	∅ 2.1
E	14.50	15.10
F	33.25	36.75
G	20.75	21.25
H	11.50	12.25
K	1.0	1.30
L	18.75	21.65
M	0.40	0.60
N	3.15	3.45
P	5.21	5.72

ALL DIMENSIONS ARE IN M.M.



PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER

TO BE MOUNTED WITH SILICONE GREASE ON THE BACK SIDE, ENSURING BACK SIDE HOLES FILLED.

Maximum Ratings								Electrical Characteristics (Ta = 25°C, Unless Otherwise Specified)										
Type No.	Polarity	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	P _D (W) @Tc=25°C	I _C (A)	I _{CM} (A)	I _{CES} (μA) Max	V _{CE} (V)	h _{FE} Min	h _{FE} Max	I _C (A) & V _{CE} (V)	V _{CE(SAT)} (V) Max	I _C (A)	C _{ob} (pF) Typ	f _t (MHz) Typ	I _C (A)	
BU426AF	NPN	900†	400	10	70	6	8	1000	900	60		0.6	5	3	4	10	0.2	
BU426F	NPN	800†	375	10	70	6	8	1000	800		60	0.6	5	3	4	10	0.2	
BU908F	NPN	1500†	700	5	34	8	15	500	1500					2	3.2	125	7	0.1
CSB817F	PNP	160	140	6	90	12		100\$	80	60	200	1.0	5	2.5	5	300	15	1
										20		6	5					
CSB817OF	PNP	160	140	6	90	12		100\$	80	60	120	1	5	2.5	5	300	15	1
										20		6	5					
CSB817YF	PNP	160	140	6	90	12		100\$	80	100	200	1	5	2.5	5	300	15	1
										20		6	5					
CSA1301F	PNP	160	160	5	90	12		5\$	160	55	200	1.0	5	2.8	8	480	30	1
										28		6	5					
CSA1301OF	PNP	160	160	5	90	12		5\$	160	80	200	1	5	2.8	8	480	30	1
										28		6	5					
CSA1301RF	PNP	160	160	5	90	12		5\$	160	55	110	1	5	2.8	8	480	30	1
										28		6	5					
CSA1302F ∅	PNP	200	200	5	90	15		5\$	200	55	200	1.0	5	3.2	10	470	25	1
										25		8	5					
CSA1302OF ∅	PNP	200	200	5	90	15		5\$	200	80	200	1	5	3.2	10	470	25	1
										25		8	5					
CSA1302RF ∅	PNP	200	200	5	90	15		5\$	200	55	110	1	5	3.2	10	470	25	1
										25		8	5					
CSC3280F	NPN	160	160	5	90	12		5\$	160	55	200	1.0	5	2	8	220	30	1
										28		6	5					
CSC3280OF	NPN	160	160	5	90	12		5\$	160	80	200	1	5	2	8	220	30	1
										28		6	5					
CSC3280RF	NPN	160	160	5	90	12		5\$	160	55	110	1	5	2	8	220	30	1
										28		6	5					
CSC3281F ∅	NPN	200	200	5	90	15		5\$	200	55	200	1.0	5	3	10	270	30	1
										25		8	5					

* Flash over current, non-repetitive Max 5 A †=V_{CES} \$=I_{CB0} ∅ under development

Maximum Ratings								Electrical Characteristics (Ta = 25°C, Unless Otherwise Specified)										
Type No.	Polarity	V _{CB0} (V) Min	V _{CE0} (V) Min	V _{EB0} (V) Min	P ₀ (W) @Tc=25°C	I _c (A)	I _{CM} (A)	I _{CES} (μA) Max	V _{CE} (V)	h _{FE} Min	h _{FE} Max	I _c (A)	V _{CE} (V)	V _{CESAT} (V) Max	I _c (A)	C _{ob} (pF) Typ	f _t (MHz) Typ	I _c (A)
CSC32810F [⊙]	NPN	200	200	5	90	15		5 ^{\$}	200	80 25	160	1 8	5 5	3	10	270	30	1
CSC3281RF [⊙]	NPN	200	200	5	90	15		5 ^{\$}	200	55 25	110	1 8	5 5	3	10	270	30	1
CSD1047F	NPN	160	140	6	90	12		100 ^{\$}	80	60 20	200	1 6	5 5	2.5	5	210	15	1.0
CSD10470F	NPN	160	140	6	90	12		100 ^{\$}	80	60 20	120	1 6	5 5	2.5	5	210	15	1
CSD1047YF	NPN	160	140	6	90	12		100 ^{\$}	80	100 20	200	1 6	5 5	2.5	5	210	15	1
CSD1426F	NPN	1500	600	5	34	3.5		10 ^{\$}	500	8		0.5	5	8	3	95	3	0.1
TIP33AF	NPN	60	60	5	80	10	15	400	60	20 40	100	3 1	4 4	1 4	3 10		3 ⁺	0.5
TIP33BF	NPN	80	80	5	80	10	15	400	80	20 40	100	3 1	4 4	1 4	3 10		3 ⁺	0.5
TIP33CF	NPN	100	100	5	80	10	15	400	100	20 40	100	3 1	4 4	1 4	3 10		3 ⁺	0.5
TIP33F	NPN	40	40	5	80	10	15	400	40	20 40	100	3 1	4 4	1 4	3 10		3 ⁺	0.5
TIP34AF	PNP	60	60	5	80	10	15	400	60	20 40	100	3 1	4 4	1 4	3 10		3 ⁺	0.5
TIP34BF	PNP	80	80	5	80	10	15	400	80	20 40	100	3 1	4 4	1 4	3 10		3 ⁺	0.5
TIP34CF	PNP	100	100	5	80	10	15	400	100	20 40	100	3 1	4 4	1 4	3 10		3 ⁺	0.5
TIP34F	PNP	40	40	5	80	10	15	400	40	20 40	100	3 1	4 4	1 4	3 10		3 ⁺	0.5
TIP140F	NPN	60	60	5	60	10	20	1000 ^{\$}	60	1000 500		5 10	4 4	2 3	5 10			
TIP141F	NPN	80	80	5	60	10	20	1000 ^{\$}	80	1000 500		5 10	4 4	2 3	5 10			
TIP142F	NPN	100	100	5	60	10	20	1000 ^{\$}	100	1000 500		5 10	4 4	2 3	5 10			
TIP145F	PNP	60	60	5	60	10	20	1000 ^{\$}	60	1000 500		5 10	4 4	2 3	5 10			
TIP146F	PNP	80	80	5	60	10	20	1000 ^{\$}	80	1000 500		5 10	4 4	2 3	5 10			
TIP147F	PNP	100	100	5	60	10	20	1000 ^{\$}	100	1000 500		5 10	4 4	2 3	5 10			
TIP2955F	PNP	100	60	7	90	15		1000 [‡]	70	20 5	70	4 10	4 4	1.1 3	4 10		2.5	0.5
TIP2955HVF	PNP	120	100	7	60	15		5000 ^{**}	100	20 5	100	4 10	4 4	1.1 3	4 10		2.5	0.5
TIP3055F	NPN	100	60	7	90	15		1000 [‡]	70	20 5	150	4 10	4 4	3 3	10 10		2.5	0.5
TIP3055HVF	NPN	120	120	7	60	15		5000 ^{**}	100	20 5	100	4 10	4 4	1.1 3	4 10		2.5	0.5

* Flash over current, non-repetitive Max 5 A †=f_t Min \$=I_{CB0} ‡=I_{CER} **=I_{CEV} ⊙ under development