

TO-202

PLASTIC PACKAGE TRANSISTORS (NPN)

Maximum Ratings						Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)											
Type No.	V _{CBO} (V)	V _{ECO} (V)	V _{EBO} (V)	I _{CBO} (μA)	V _{CB} (V)	h _{FE}		I _C & V _{CE} (mA)	V _{CE(Sat)} (V)	V _{BE(Sat)} (V)		I _C (mA)	C _{ob} (pF)	f _T (MHz)		I _C (mA)	C _{DIL} Case Style
	Min	Min	Min	Max		Min	Max		Max	Min	Max		Max	Min	Max		
2SC2068	300	300	5.0	1.0	240	20	30	0.5	10	1.0		10	4	75	98	20	TO-202
2SC20680	300	300	5.0	1.0	240	20	70	0.5	10	1.0		10	4	75	90	20	TO-202
2SC2068R	300	300	5.0	1.0	240	20	30	0.5	10	1.0		10	4	75	90	20	TO-202
2SC2068Y	300	300	5.0	1.0	240	20	120	0.5	10	1.0		10	4	75	90	20	TO-202
BF859	300	300	5.0	0.1	250	26		30.0	10	1.0		30		90	90	15	TO-202
CSC2611	300	300	5.0			30	200	20.0	20	1.5		20	4	50		20	TO-202
CSC2621	300	300	6.5	1.0	200	40	200	10.0	10		1.0	20	5	50		10	TO-202
CSC2621C	300	300	6.5	1.5	200	40	80	10.0	10	0.6	1.0	20	5	50		10	TO-202
CSC2621D	300	300	6.5	1.0	200	60	120	10.0	10	0.6	1.0	20	5	50		10	TO-202
CSC2621E	300	300	6.5	1.0	200	100	200	10.0	10	0.6	1.0	20	5	50		10	TO-202
BF858	250	250	5.0	0.1	200	26		30.0	10	1.0		30		90		15	TO-202
BF857	160	160	5.0	0.1	100	26		30.0	10			30		90		15	TO-202
BD817	100	80	5.0			40	250	150.0	2	0.6		1000		3			TO-202
BD829	100	80	5.0	0.1	30	25	40	5.0	2	0.5		500		250	50		TO-202
BD843	100	80	5.0			25	25	5.0	2			1000		125			TO-202
CSC1212A	80	80	5.0	5.0	50	60	20	50.0	4	1.5		1000	30	100	160	30	TO-202
BD815	60	60	5.0		40	40	250	150.0	2	0.6		1000		3			TO-202
BD827	60	60	5.0	0.1	30	25	40	5.0	2	0.5		500		250	50		TO-202
BD841	60	60	5.0			25	25	5.0	2	0.8		1000		125			TO-202
CSC1212	50	50	5.0	5.0	50	60	20	50.0	4	1.5		1000	30	100	160	30	TO-202
CSC1212B	50	50	5.0	5.0	50	60	20	50.0	4	1.5		1000	30	100	160	30	TO-202

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Type No.	Maximum Ratings					Electrical Characteristics								(Ta=25°C, Unless Otherwise Specified)			C _{DIL} Case Style
	V _{CB0} (V)	V _{ECO} (V)	V _{EBO} (V)	I _{CBO} (μA)	V _{CB} (V)	h _{FE}		I _C & V _{CE} (mA) (V)	V _{CE(Sat)} (V)	V _{BE(Sat)} & I _C (V) (mA)		C _{ob} (pF)	f _T (MHz)		I _C (mA)		
	Min	Min	Min	Max		Min	Max		Max	Min	Max	Max	Min	Max			
CSC1212C	50	50	5.0	5.0	50	100	200	50.0	4	1.5		1000	30	100	160	30	TO-202
						20		1000.0	4								
BD813	45	45	5.0			40	250	150.0	2	0.6		1000		3			TO-202
BD825	45	45	5.0	0.1	30	25		5.0	2	0.5		500		250	50		TO-202
						40	250	150.0	2								
						25		500.0	2								
BD839	45	45	5.0	0.1	30	25		5.0	2	0.8		1000		125			TO-202
						25		1000.0	2								
						40	250	150.0	2								

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