

# TO-92 Plastic Package Transistors (NPN)

Maximum Ratings						Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																				
Type No.	V <sub>CB0</sub> (V)	V <sub>CEO</sub> (V)	V <sub>EB0</sub> (V)	P <sub>D</sub> (W)	I <sub>C</sub> (A)	I <sub>CB0</sub> (μA)	V <sub>CB</sub> (V)	I <sub>CES</sub> (μA)	V <sub>CE</sub> (V)	h <sub>FE</sub>	@	I <sub>C</sub> & (mA)	V <sub>CE</sub> (V)	V <sub>CE(SAT)</sub> (V)	V <sub>BE(SAT)</sub> (V)	I <sub>C</sub> (mA)	C <sub>ob</sub> (pF)	f <sub>t</sub> (MHz)	@	I <sub>C</sub> (mA)	t <sub>off</sub> (ns)	N <sub>F</sub> (dB)	@ Freq (MHz)	C <sub>re</sub> (pF)	CDIL Case Style	
	Min	Min	Min	@ Tc=25°C		Max	@	Max	Max	Min	Max			Max	Max	Max	Typ	Max	Min	Typ	Max	Max	Max	Max	Max	
2SC2274D	100	80	5	0.6	0.5	1	40			60	120	50	5	0.6	1.2	400	5		120		10					TO-92-1
2SC2274E	100	80	5	0.6	0.5	1	40			100	200	50	5	0.6	1.2	400	5		120		10					TO-92-1
2SC2274F	100	80	5	0.6	0.5	1	40			160	320	50	5	0.6	1.2	400	5		120		10					TO-92-1
2SC2274K	100	80	5	0.6	0.5	1	40			60	320	50	5	0.6	1.2	400	5		120		10					TO-92-1
2SC2309	55	50	5	0.2	0.1	0.5	18			250	1200	2	12	0.2		10	3.5	150	230		2					TO-92-1
2SC2309D	55	50	5	0.2	0.1	0.5	18			250	500	2	12	0.2		10	3.5	150	230		2					TO-92-1
2SC2309E	55	50	5	0.2	0.1	0.5	18			400	800	2	12	0.2		10	3.5	150	230		2					TO-92-1
2SC2309F	55	50	5	0.2	0.1	0.5	18			600	1200	2	12	0.2		10	3.5	150	230		2					TO-92-1
2SC2458	50	50	5	0.2	0.15	0.1	50			70	700	2	6	0.25		100	3.5	80			1		10			TO-92-1
2SC2458BL	50	50	5	0.2	0.2	0.1	50			350	700	2	6	0.25		100	3.5	80			1		10			TO-92-1
2SC2458GF	50	50	5	0.2	0.15	0.1	50			200	400	2	6	0.25		100	3.5	80			1		10			TO-92-1
2SC2458O	50	50	5	0.2	0.15	0.1	50			70	140	2	6	0.25		100	3.5	80			1		10			TO-92-1
2SC2458Y	50	50	5	0.2	0.15	0.1	50			120	240	2	6	0.25		100	3.5	80			1		10			TO-92-1
2SC2482	300	300	7	0.9	0.1	1	240			20		4	10	1		1	3		50		20					TO-92-1
2SC3114	60	50	7	0.4	0.15	0.1	40			100	560	1	6	0.5		50	3		100		1					TO-92-1
2SC3114R	60	50	7	0.4	0.15	0.1	40			100	200	1	6	0.5		50	3		100		1					TO-92-1
2SC3114S	60	50	7	0.4	0.15	0.1	40			140	280	1	6	0.5		50	3		100		1					TO-92-1
2SC3114T	60	50	7	0.4	0.15	0.1	40			200	400	1	6	0.5		50	3		100		1					TO-92-1
2SC3114U	60	50	7	0.4	0.15	0.1	40			280	560	1	6	0.5		50	3		100		1					TO-92-1
2SC3197	30	25	4	0.3	0.05	0.1	30			20	200	12.5	12.5	0.2		1.5	13	0.8	2	300		13				TO-92-1
2SC3198	60	50	5	0.625	0.15	0.1	60			70	700	2	6	0.25		1	100	2	3.5	80		1		10		TO-92-1
2SC3198BL	60	50	5	0.625	0.15	0.1	60			350	700	2	6	0.25		1	100	2	3.5	80		1		10		TO-92-1
2SC3198GF	60	50	5	0.625	0.15	0.1	60			200	400	2	6	0.2		1	100	2	3.5	80		1		10		TO-92-1
2SC3198O	60	50	5	0.625	0.15	0.1	60			70	140	2	6	0.25		1	100	2	3.5	80		1		10		TO-92-1
2SC3198Y	60	50	5	0.625	0.15	0.1	60			120	240	2	6	0.25		1	100	2	3.5	80		1		10		TO-92-1
2SC3199	50	50	5	0.4	0.15	0.1	50			70	700	2	6	0.25		100	2	3.5	80		1		10			TO-92-1
2SC3199GF	50	50	5	0.4	0.15	0.1	50			200	400	2	6	0.25		100	2	3.5	80		1					TO-92-1
2SC3199O	50	50	4	0.4	0.15	0.1	50			70	140	2	6	0.25		100	2	3.5	80		1		10			TO-92-1