

# TO-92 Plastic Package Transistors (NPN)

Maximum Ratings							Electrical Characteristics (Ta=25°C, Unless Otherwise Specified)																			
Type No.	V <sub>CBO</sub> (V)	V <sub>CEO</sub> (V)	V <sub>EBO</sub> (V)	P <sub>D</sub> (W)	I <sub>C</sub> (A)	I <sub>CBO</sub> (μA)	V <sub>CB</sub> (V)	I <sub>CES</sub> (μA)	V <sub>CE</sub> (V)	h <sub>FE</sub>	β	I <sub>C</sub> & V <sub>CE</sub> (mA)	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)	β	I <sub>C</sub> (mA)	t <sub>on</sub> (ns)	N <sub>F</sub> (dB)	β	Freq (MHz)	C <sub>ob</sub> (pF)	CDIL Case Style	
	Min	Min	Min	@Tc=25°C	Max	Max	Max	Max	Min	Max	Min	Max	Max	Min	Max	Typ	Max	Min	Typ	Max	Max	Max	Max	Max	Max	
BF195	30	20	5	0.4	0.03	0.1	20			36	125	1 10				0.3			1					3.5		TO-92-2
BF196	40	30	4	0.4	0.03	0.1	40			26		4 10														TO-92-2
BF197	40	25	4	0.35	0.1	0.1	40			36		7 10					1100		7							TO-92-2
BF198	40	30	4	0.625		0.1	40			26		4 10														TO-92-2
BF199	40	25	4	0.35	0.1	0.1	20			40		7 10					400		5							TO-92-2
BF224	45	30	4	0.35	0.05	0.1	20			30		7 10	0.15		10		300 600		2				2.5			TO-92-2
BF237	45	30	4	0.35	0.1	0.1	20						0.25		10											TO-92-2
BF238	45	30	4	0.35	0.1	0.1	20						0.25		10											TO-92-2
BF240	40	40	4	0.35	0.03	0.1	20			65	220	1 10														TO-92-2
BF241	40	40	4	0.35	0.03	0.1	20			35	125	1 10														TO-92-2
BF254	30	20	5	0.35	0.1	0.1	10			65	220	1 10					260		1							TO-92-2
BF254-3	30	20	5	0.35	0.1	0.1	10			65	125	1 10					260		1							TO-92-2
BF254-4	30	20	5	0.35	0.1	0.1	10			100	220	1 10					260		1							TO-92-2
BF255	30	20	5	0.4	0.03	0.1	20			36	125	1 10		0.65	0.74	1	0.3			1				3.5		TO-92-2
BF391	200	200	6	0.625	0.5	0.1	160			25		1 10	2		2 20		50		10					2		TO-92
BF392	250	250	6	0.625	0.5	0.1	200			25		1 10	2		2 20		50		10					2		TO-92
BF393	300	300	6	0.625	0.5	0.1	200			25		1 10	2		2 20		50		1					2		TO-92
BF420	300	300	5	0.8	0.5	0.01	200			50		25 20	0.5		2 20		60		10					1.6		TO-92-1
BF422	250	250	5	0.8	0.5	0.01	200			50		25 20	0.5		2 20		60		10					1.6		TO-92-1
BF494	30	20	5	0.3	0.03	0.1	20			67	220	1 10				1.5	120		260	1				1		TO-92-2
BF494A	30	20	5	0.3	0.03	0.1	20			200	500	1 10				1.5	120		260	1				1		TO-92-2
BF494B	30	20	5	0.3	0.03	0.1	20			100	220	1 10				1.5	120		260	1				1		TO-92-2
BF495	30	20	5	0.3	0.03	0.1	20			35	125	1 10				1.5	120		260	1				1		TO-92-2
BF495C	30	20	5	0.3	0.03	0.1	20			67	125	1 10				1.5	120		260	1				1		TO-92-2
BF495D	30	20	5	0.3	0.03	0.1	20			35	76	1 10				1.5	120		260	1				1		TO-92-2
BF496	30	20	3	0.3	0.02	0.5	20			15		2 10					550		2							TO-92
BF959	30	20	3	0.625	0.1	0.1	20			35		5 10	1		1 30		700		20					0.7		TO-92-2
BSY95A	20	15	5	0.625	0.2	0.05	16			30	200	1 0.4	0.35	0.67	0.87	10	6	200		10						TO-92