

## Small Signal Transistors TO-39 Case (Continued)



TYPE NO.	DESCRIPTION	V <sub>CBO</sub>	V <sub>CEO</sub>	V <sub>EBO</sub>	I <sub>CBO</sub> @ (μA) *I <sub>CEO</sub> **I <sub>CES</sub> ***I <sub>CEV</sub> ****I <sub>CER</sub>	V <sub>CB</sub>	h <sub>FE</sub>		@ I <sub>C</sub>	@ V <sub>CE</sub>	V <sub>CE (SAT)</sub> @ I <sub>C</sub>		f <sub>T</sub>	C <sub>ob</sub>	t <sub>on</sub>	t <sub>off</sub>	NF
		(V)	(V)	(V)		(V)		(mA)	(V)	(V)	(mA)	(MHz)	(pF)	(ns)	(ns)	(dB)	
		MIN	MIN	MIN		MIN	MIN	MAX	MAX	MAX	MAX	MIN	MAX	MAX	MAX	MAX	
2N4930	PNP HIGH VOLTAGE	200	200	4.0	1.00	150	20	200	10	10	5.00	10	20	20	--	--	--
2N4931	PNP HIGH VOLTAGE	250	250	4.0	1.00	150	20	200	10	10	5.00	10	20	20	--	--	--
2N4943	NPN AMPL/SWITCH	120	80	7.0	0.01	60	100	300	150	10	0.25	150	12	--	--	--	--
2N4960	NPN AMPL/SWITCH	60	60	6.5	0.01	50	100	300	150	10	0.50	500	250	15	--	--	--
2N5022	PNP CORE DRIVER	50	50	5.0	100**	30	25	100	500	1.0	0.80	1.0	170	25	40	90	--
2N5023	PNP CORE DRIVER	30	30	5.0	100**	20	40	100	500	1.0	0.70	1.0	200	25	40	90	--
2N5058	NPN HIGH VOLTAGE	300	300	7.0	0.05	100	35	150	30	25	1.00	30	30	10	--	--	--
2N5059	NPN HIGH VOLTAGE	250	250	6.0	0.05	100	30	150	30	25	1.00	30	30	10	--	--	--
2N5109	NPN HIGH FREQUENCY	40	20	3.0	5.00***	35	40	120	50	15	0.50	100	1,200	3.5	--	--	3.0*
2N5147	PNP HIGH CURRENT	100	80	5.5	1.00**	60	30	90	1,000	5.0	0.85	2,000	--	--	--	--	--
2N5148	NPN HIGH CURRENT	100	80	6.0	1.00**	60	30	90	1,000	5.0	5.00	3,000	60	70	--	--	--
2N5149	PNP HIGH CURRENT	100	80	5.5	1.00**	60	70	200	1,000	5.0	0.85	2,000	60	70	--	--	--
2N5150	NPN HIGH CURRENT	100	80	6.0	1.00**	60	70	200	1,000	5.0	5.00	3,000	60	70	--	--	--
2N5151	PNP HIGH CURRENT	100	80	5.5	1.00**	60	30	90	2,500	5.0	0.75	2,500	60	250	--	--	--
2N5152	NPN HIGH CURRENT	100	80	6.0	1.00**	60	70	200	2,500	5.0	0.75	2,500	70	250	--	--	--
2N5153	PNP HIGH CURRENT	100	80	5.5	1.00**	60	30	90	2,500	5.0	0.75	2,500	60	250	--	--	--
2N5154	NPN HIGH CURRENT	100	80	6.0	1.00**	60	70	200	2,500	5.0	0.75	2,500	70	250	--	--	--
2N5189	NPN CORE DRIVER	60	35	5.0	0.50	30	35	--	500	1.0	1.00	1.0	250	12	40	70	--
2N5262	NPN CORE DRIVER	75	50	5.0	1.00**	30	35	--	100	1.0	0.80	1,000	250	12	30	60	--
2N5320	NPN AMPL/SWITCH	100	75	7.0	100	100	30	130	500	4.0	0.50	500	50	--	80	800	--
2N5321	NPN AMPL/SWITCH	75	50	5.0	100	75	40	250	500	4.0	0.80	500	50	--	80	800	--
2N5322	PNP AMPL/SWITCH	100	75	5.0	100	100	30	130	500	4.0	0.70	500	50	--	100	1,000	--
2N5323	PNP AMPL/SWITCH	75	50	5.0	100	75	40	250	500	4.0	1.20	500	50	--	100	1,000	--
2N5333	PNP AMPL/SWITCH	100	80	6.0	10**	90	30	120	1,000	4.0	1.00	2,000	30	--	--	--	--
2N5334	NPN AMPL/SWITCH	60	60	6.0	5.00	60	30	150	1,000	2.0	0.70	2,000	40	75	--	--	--
2N5335	NPN AMPL/SWITCH	80	80	6.0	5.00	80	30	150	1,000	2.0	0.70	2,000	40	75	--	--	--
2N5336	NPN FAST SWITCH	80	80	6.0	10	80	30	120	2,000	2.0	0.70	2,000	30	250	--	--	--
2N5337	NPN HIGH CURRENT	80	80	6.0	10	80	60	240	2,000	2.0	0.70	2,000	30	250	--	--	--
2N5338	NPN HIGH CURRENT	100	100	6.0	10	100	30	120	2,000	2.0	0.70	2,000	30	250	--	--	--
2N5339	NPN HIGH CURRENT	100	100	6.0	10	100	60	240	2,000	2.0	0.70	2,000	30	250	--	--	--
2N5415	PNP HIGH VOLTAGE	200	200	4.0	50	175	30	150	50	10	2.50	50	15	25	--	--	--
2N5416	PNP HIGH VOLTAGE	350	350	6.0	50	280	30	120	50	10	2.50	50	15	25	--	--	--
2N5679	PNP AMPL/SWITCH	100	100	4.0	1.00	100	40	150	250	2.0	1.00	500	30	50	--	--	--
2N5680	PNP AMPL/SWITCH	120	120	4.0	1.00	120	40	150	250	2.0	1.00	500	30	50	--	--	--
2N5681	NPN AMPL/SWITCH	100	100	4.0	1.00	100	40	150	250	2.0	1.00	500	30	50	--	--	--
2N5682	NPN AMPL/SWITCH	120	120	4.0	1.00	120	40	150	250	2.0	1.00	500	30	50	--	--	--
2N5781	PNP AMPL/SWITCH	80	65	5.0	10***	75	20	100	1,000	2.0	0.50	1,000	8.0	--	--	--	--
2N5782	PNP AMPL/SWITCH	65	50	5.0	10***	60	20	100	1,200	2.0	0.75	1,200	8.0	--	--	--	--
2N5783	PNP AMPL/SWITCH	45	40	3.5	10***	45	20	100	1,600	2.0	1.00	1,600	8.0	--	--	--	--

