

8514019 SPRAGUE. SEMICONDS/ICS

93D 03585 D T-27-90

PLASTIC-CASE BIPOLAR TRANSISTORS

NPN Transistors

'2N' and 'TP' Device Types

ELECTRICAL CHARACTERISTICS at T<sub>A</sub> = 25°C

Device Type	I <sub>C</sub> Max. (mA)	V <sub>(BR)CBO</sub> (V)	V <sub>(BR)CEO</sub> (V)	V <sub>(BR)EBO</sub> (V)	I <sub>CBO</sub>		DC Current Gain				V <sub>CE(sat)</sub>		f <sub>T</sub>		C <sub>ob</sub> <sup>1</sup> (pF)	t <sub>s</sub> <sup>1</sup> (ns)	NF <sup>1</sup> (dB)	Process
					Max. (nA)	α V <sub>CB</sub> (V)	h <sub>FE</sub> Min.	h <sub>FE</sub> Max.	α I <sub>C</sub> (mA)	α V <sub>CE</sub> (V)	Max. (V)	α I <sub>C</sub> (mA)	Min. (MHz)	α I <sub>C</sub> (mA)				
TP918	50	30	15	3.0	10	15	20	—	3.0	1.0	0.4	10	600	4.0	1.7	—	—	DMA
TP930	100	45	45	5.0	10	45	100	300	0.01	5.0	1.0	10	30	0.5	8.0	—	3.0	FEE
TP2218	500	60	30	5.0	10	50	40	120	150	10	0.4	150	250	20	8.0	—	—	JGA
TP2218A	500	75	40	6.0	10	60	40	120	150	10	0.3	150	250	20	8.0	225	—	DCA
TP2219	500	60	30	5.0	10	50	100	300	150	10	0.4	150	250	20	8.0	—	—	JGA
TP2219A	500	75	40	6.0	10	60	100	300	150	10	0.3	150	300	20	8.0	225	—	DCA
TP2221	500	60	30	5.0	10	50	40	120	150	10	0.4	150	250	20	8.0	—	—	JGA
TP2221A	500	75	40	6.0	10	60	40	120	150	10	0.3	150	250	20	8.0	225	—	DCA
TP2222	500	60	30	5.0	10	50	100	300	150	10	0.4	150	250	20	8.0	—	—	JGA
TP2222A	500	75	40	6.0	10	60	100	300	150	10	0.3	150	250	20	8.0	225	—	DCA
TP2484	100	60	60	6.0	10	45	100	500	10 <sup>2</sup>	5.0	0.35	1.0	15	0.05	6.0	—	3.0	FEE
2N2712	500	18	18	5.0	500	18	75	225	2.0	4.5	—	—	80	2.0	12	—	—	JGA
2N2714	500	18	18	5.0	500	18	75	225	2.0	4.5	0.3	50	—	—	—	—	—	JGA
2N2923	500	25	25	5.0	100	25	90	180	2.0	10	10	1000	—	—	10	—	—	JGA
2N2924	500	25	25	5.0	100	25	150	300	2.0	10	—	—	—	—	10	—	—	JGA
2N2925	500	25	25	5.0	100	25	235	470	2.0	10	—	—	—	—	10	—	—	JGA
2N2926	500	18	18	5.0	500	18	35	470	2.0	10	—	—	—	—	10	—	—	JGA
TP3252	800	60	30	5.0	500	40	30	90	500	1.0	0.5	500	200	50	12	70	—	BHB
TP3253	800	75	40	5.0	500	60	25	75	375	1.0	0.6	500	175	50	12	70	—	BHB
TP3299	500	60	30	5.0	10 <sup>3</sup>	50	40	120	150	10	0.22	150	250	50	8.0	150	—	DCA
TP3300	500	60	30	5.0	10 <sup>3</sup>	50	100	300	150	10	0.22	150	250	50	8.0	150	—	DCA
TP3301	500	60	30	5.0	10 <sup>3</sup>	50	40	120	150	10	0.22	150	250	50	8.0	150	—	DCA
TP3302	500	60	30	5.0	10 <sup>3</sup>	50	100	300	150	10	0.22	150	250	50	8.0	150	—	DCA
2N3390	500	25	25	5.0	100	18	400	800	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3391	500	25	25	5.0	100	18	250	500	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3391A	500	25	25	5.0	100	18	250	500	2.0	4.5	—	—	—	—	10	—	5.0	JGA
2N3392	500	25	25	5.0	100	18	150	300	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3393	500	25	25	5.0	100	18	90	180	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3394	500	25	25	5.0	100	18	55	110	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3395	500	25	25	5.0	100	18	150	500	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3396	500	25	25	5.0	100	18	90	500	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3397	500	25	25	5.0	100	18	55	500	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3398	500	25	25	5.0	100	18	55	800	2.0	4.5	—	—	—	—	10	—	—	JGA
2N3402	500	25	25	5.0	100	25	75	225	2.0	4.5	0.3	50	—	—	—	—	—	JGA
2N3403	500	25	25	5.0	100	25	180	540	2.0	4.5	0.3	50	—	—	—	—	—	JGA
2N3404	500	50	50	5.0	100	50	75	225	2.0	4.5	0.3	50	—	—	—	—	—	JGA
2N3405	500	50	50	5.0	100	50	180	540	2.0	4.5	0.3	50	—	—	—	—	—	JGA
2N3414	500	25	25	5.0	100	25	75	225	2.0	4.5	0.3	50	—	—	—	—	—	JGA
2N3415	500	25	25	5.0	100	25	180	540	2.0	4.5	0.3	50	—	—	—	—	—	JGA

NOTES

- 1) Maximum at typical JEDEC conditions.
- 2) μA
- 3) V<sub>(BR)ICES</sub> I<sub>CES</sub>, as applicable
- 4) mA
- 5) V<sub>(BR)ICER</sub> at R = 10Ω.