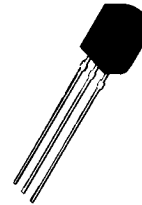


High Speed Switching Transistors

TO-106



TO-92



TYPE NO. NPN PNP	Maximum Ratings					Electrical Characteristics @ T _A = 25 °C							CASE
	P _D @ T _A = 25 °C	I _C	BV _{CBO}	LV _{CEO}	BV _{EBO}	h _{FE} @ V _{CE} @ I _C	V _{CE(sat)} @ I _C /I _B	t _{on} t _{off}	Cob	f _T @ I _C			
						min./max.	max	max.	max.	min.			
ME 9001	250mW	100mA	40V	15V	4.5V	40/120 @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	12ns 18ns	4.0pF	400MHz @ 10mA	TO-106		
ME 9002	250mW	100mA	30V	12V	4.5V	30/150 @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	15ns 20ns	4.0pF	400MHz @ 10mA	TO-106		
ME 9003	250mW	100mA	18V	12V	4.0V	25/200 @ 5.00V @ 10mA	0.25V @ 1/ 0.1mA	15ns 20ns	4.0pF	400MHz @ 10mA	TO-106		
ME 9021	250mW	100mA	40V	15V	5.0V	30/120 @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	30ns 25ns	6.0pF	300MHz @ 10mA	TO-106		
ME 9022	250mW	100mA	25V	12V	4.0V	30/ — @ 1.00V @ 10mA	0.40V @ 10/ 1.0mA	50ns 70ns	6.0pF	300MHz @ 10mA	TO-106		
MA 9001	360mW	100mA	40V	15V	4.5V	40/120 @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	12ns 18ns	4.0pF	400MHz @ 10mA	TO-18		
MA 9002	360mW	100mA	30V	12V	4.5V	30/150 @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	15ns 20ns	4.0pF	400MHz @ 10mA	TO-18		
MA 9003	360mW	100mA	18V	12V	4.0V	25/200 @ 5.00V @ 10mA	0.25V @ 1/ 0.1mA	15ns 20ns	4.0pF	400MHz @ 10mA	TO-18		
2N 706	300mW	200mA	25V	15V	3.0V	20/ — @ 1.00V @ 10mA	0.60V @ 10/ 1.0mA	40ns 75ns	6.0pF	200MHz @ 10mA	TO-18		
2N 708	360mW	200mA	40V	15V	5.0V	30/120 @ 1.00V @ 10mA	0.40V @ 10/ 1.0mA	40ns 75ns	6.0pF	300MHz @ 10mA	TO-18		
2N 718	400mW	500mA	60V	40V	5.0V	35/150 @ 10.00V @ 5mA	1.50V @ 150/15.0mA	— —	35.0pF	80MHz @ 50mA	TO-18		
2N 744	300mW	200mA	20V	12V	5.0V	40/120 @ 0.35V @ 10mA	0.35V @ 10/ 1.0mA	16ns 24ns	5.0pF	300MHz @ 10mA	TO-18		
2N 753	300mW	50mA	25V	15V	5.0V	40/120 @ 1.00V @ 10mA	0.60V @ 10/ 1.0mA	40ns 75ns	5.0pF	200MHz @ 10mA	TO-18		
2N 834	300mW	200mA	40V	—	5.0V	25/ — @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	33ns 75ns	4.0pF	350MHz @ 10mA	TO-18		
2N 914	360mW	150mA	40V	15V	5.0V	30/120 @ 1.00V @ 10mA	0.25V @ 20/ 2.0mA	40ns 40ns	6.0pF	300MHz @ 20mA	TO-18		
2N 915	360mW	200mA	70V	50V	5.0V	50/200 @ 5.00V @ 10mA	1.00V @ 10/ 1.0mA	— —	3.5pF	250MHz @ 10mA	TO-18		
2N 916	360mW	100mA	45V	25V	5.0V	50/200 @ 1.00V @ 10mA	0.50V @ 10/ 1.0mA	— —	6.0pF	300MHz @ 10mA	TO-18		
2N 2217	800mW	500mA	60V	30V	5.0V	20/ 60 @ 10.00V @ 150mA	0.40V @ 150/15.0mA	— —	8.0pF	250MHz @ 20mA	TO-5		
2N 2218	800mW	500mA	60V	30V	5.0V	40/120 @ 10.00V @ 150mA	0.40V @ 150/15.0mA	— —	8.0pF	250MHz @ 20mA	TO-5		
2N 2218A	800mW	500mA	75V	40V	6.0V	40/120 @ 10.00V @ 150mA	0.30V @ 150/15.0mA	25ns 225ns	8.0pF	250MHz @ 20mA	TO-5		
2N 2219	800mW	500mA	60V	30V	5.0V	100/300 @ 10.00V @ 150mA	0.40V @ 150/15.0mA	— —	8.0pF	250MHz @ 20mA	TO-5		
2N 2219A	800mW	500mA	75V	40V	6.0V	100/300 @ 10.00V @ 150mA	0.30V @ 150/15.0mA	35ns 285ns	8.0pF	300MHz @ 20mA	TO-5		
2N 2220	500mW	500mA	60V	30V	5.0V	20/ 60 @ 10.00V @ 150mA	0.40V @ 150/15.0mA	35ns 285ns	8.0pF	250MHz @ 20mA	TO-18		
2N 2221	500mW	500mA	60V	30V	5.0V	40/120 @ 10.00V @ 150mA	0.40V @ 150/15.0mA	35ns 285ns	8.0pF	250MHz @ 20mA	TO-18		
2N 2221A	500mW	500mA	75V	40V	6.0V	40/120 @ 10.00V @ 150mA	0.30V @ 150/15.0mA	35ns 285ns	8.0pF	250MHz @ 20mA	TO-18		
2N 2222	500mW	500mA	60V	30V	5.0V	100/300 @ 10.00V @ 150mA	0.40V @ 150/15.0mA	35ns 285ns	8.0pF	250MHz @ 20mA	TO-18		
2N 2222A	500mW	500mA	75V	40V	6.0V	100/300 @ 10.00V @ 150mA	0.30V @ 150/15.0mA	35ns 285ns	8.0pF	300MHz @ 20mA	TO-18		
2N 2368	360mW	500mA	40V	15V	4.5V	20/ 60 @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	12ns 15ns	4.0pF	400MHz @ 10mA	TO-18		
2N 2369	360mW	500mA	40V	15V	4.5V	40/120 @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	12ns 18ns	4.0pF	500MHz @ 10mA	TO-18		
2N 2369A	360mW	200mA	40V	15V	4.5V	40/120 @ 1.00V @ 10mA	0.30V @ 10/ 1.0mA	12ns 18ns	4.0pF	500MHz @ 10mA	TO-18		
2N 3011	360mW	200mA	30V	12V	5.0V	30/120 @ 0.35V @ 10mA	0.20V @ 10/ 1.0mA	15ns 20ns	4.0pF	400MHz @ 20mA	TO-18		
2N 3014	360mW	200mA	40V	20V	5.0V	30/120 @ 0.40V @ 30mA	0.18V @ 30/ 3.0mA	16ns 25ns	5.0pF	350MHz @ 30mA	TO-18		
2N 3299	800mW	500mA	60V	30V	5.0V	40/120 @ 10.00V @ 150mA	0.22V @ 150/15.0mA	60ns 150ns	8.0pF	250MHz @ 50mA	TO-5		
2N 3300	800mW	500mA	60V	30V	5.0V	100/300 @ 10.00V @ 150mA	0.22V @ 150/15.0mA	60ns 150ns	8.0pF	250MHz @ 50mA	TO-5		
2N 3301	360mW	500mA	60V	30V	5.0V	40/120 @ 10.00V @ 150mA	0.22V @ 150/15.0mA	60ns 150ns	8.0pF	250MHz @ 50mA	TO-18		
2N 3302	360mW	500mA	60V	30V	5.0V	100/300 @ 10.00V @ 150mA	0.22V @ 150/15.0mA	60ns 150ns	8.0pF	250MHz @ 50mA	TO-18		
2N 3646	200mW	200mA	40V	15V	5.0V	30/120 @ 0.40V @ 30mA	0.20V @ 30/ 3.0mA	18ns 28ns	5.0pF	350MHz @ 30mA	TO-106		
2N 3903	310mW	200mA	60V	40V	6.0V	50/150 @ 1.00V @ 10mA	0.20V @ 10/ 1.0mA	70ns 225ns	4.0pF	250MHz @ 10mA	TO-92A		
2N 3904	310mW	200mA	60V	40V	6.0V	100/300 @ 1.00V @ 10mA	0.20V @ 10/ 1.0mA	70ns 250ns	4.0pF	300MHz @ 10mA	TO-92A		
2N 3946	360mW	200mA	60V	40V	6.0V	50/150 @ 1.00V @ 10mA	0.20V @ 10/ 1.0mA	70ns 450ns	4.0pF	250MHz @ 10mA	TO-18		
2N 3947	360mW	200mA	60V	40V	6.0V	100/300 @ 1.00V @ 10mA	0.20V @ 10/ 1.0mA	70ns 450ns	4.0pF	300MHz @ 10mA	TO-18		
2N 4123	310mW	200mA	40V	30V	5.0V	50/150 @ 1.00V @ 2mA	0.30V @ 50/ 5.0mA	37ns 136ns	4.0pF	250MHz @ 10mA	TO-92A		
2N 4124	310mW	200mA	30V	25V	5.0V	120/360 @ 1.00V @ 2mA	0.30V @ 50/ 5.0mA	37ns 136ns	4.0pF	300MHz @ 10mA	TO-92A		
2N 4274	280mW	100mA	30V	12V	4.5V	35/120 @ 1.00V @ 10mA	0.25V @ 30/ 3.0mA	12ns 12ns	4.0pF	400MHz @ 10mA	TO-106		
2N 4275	280mW	100mA	40V	15V	4.5V	35/120 @ 1.00V @ 10mA	0.25V @ 30/ 3.0mA	12ns 12ns	4.0pF	400MHz @ 10mA	TO-106		
2N 4400	310mW	600mA	60V	40V	6.0V	50/150 @ 1.00V @ 150mA	0.40V @ 150/15.0mA	35ns 255ns	6.5pF	200MHz @ 20mA	TO-92A		
2N 4401	310mW	600mA	60V	40V	6.0V	100/300 @ 1.00V @ 150mA	0.40V @ 150/15.0mA	35ns 255ns	6.5pF	250MHz @ 20mA	TO-92A		
2N 5134	200mW	100mA	20V	10V	3.5V	20/150 @ 1.00V @ 10mA	0.25V @ 10/ 1.0mA	18ns 18ns	4.0pF	250MHz @ 10mA	TO-106		