

0258354 ADVANCED SEMICONDUCTOR
SILICON ADVANCED SEMICONDUCTOR
TRANSISTORS

82D 00039 D T-29-01

82 DE 0258354 0000039 7

DEVICE TYPE NO.	POLARITY	P _D @ T _C = 25°C	MAXIMUM RATINGS				ELECTRICAL CHARACTERISTICS				CASE
		WATTS	I _C AMPS	BV _{CBO}	BV _{CE}	BV _{EBO}	h _{FE} MIN.	I _C AMPS	V _{CE}	f MHZ *KHZ	
2N329A	PNP	.386	.050	50	30	20		.003	5	*500	T039
2N332	NPN	.150	.025	45	20	1	9	.001	5	4	T05
2N333	NPN	.150	.025	45	20	1	18	.001	5	5	T05
2N334	NPN	.150	.025	45	20	1	18	.001	5	8	T05
2N335	NPN	.150	.025	45	20	1	37	.001	5	6	T05
2N336	NPN	.150	.025	45	20	1	78	.001	5	7	T05
2N337	NPN	.125	.020	45	20	1	20	.010	5	20	T05
2N338	NPN	.125	.020	45	20	1	45	.010	5	30	T05
2N339	NPN	1.00	.020	55	55	1	9	.005	10	10	T039
2N340	NPN	1.00	.020	85	85	1	9	.005	10	10	T039
2N341	NPN	1.00	.020	125	85	1	9	.005	10	10	T039
2N342	NPN	1.00	.020	60	60	1	9	.005	10	10	T039
2N343	NPN	1.00	.020	60	60	1	29	.005	10	10	T039
2N478	NPN	.200	.025	15	15	2	40	.001	5	20	T05
2N479	NPN	.200	.025	30	30	2	4	.001	5	20	T05
2N479A	NPN	.200	.025	30	30	2	40	.001	5	20	T05
2N480	NPN	.200	.025	45	45	2	40	.001	5	20	T05
2N480A	NPN	.200	.025	45	45	2	40	.001	5	20	T05
2N541	NPN	.200	.025	15	15	2	80	.001	5	10	T05

2N541	NPN	.200	.025	15	15	2	80	.001	5	10	T05
2N542	NPN	.200	.025	30	30	2	80	.001	5	10	T05
2N543	NPN	.200	.025	50	50	2	80	.001	5	10	T05
2N545	NPN	.600	.800	60	60	6	15	.500	6	2	T05
2N546	NPN	.600	.800	30	30	6	15	.500	6	2	T05
2N547	NPN	.600	.800	60	60	6	20	.500	6	4	T05
2N548	NPN	.600	.800	30	30	6	20	.500	6	4	T05
2N549	NPN	.600	.800	60	60	6	20	.200	6	4	T05
2N550	NPN	.600	.800	30	30	6	20	.200	6	4	T05
2N560	NPN	.500	.100	60	60	8	20	.100	5	20	T05
2N656	NPN	4.00	.500	60	60	8	30	.200	10	50	T05
2N657	NPN	4.00	.500	100	100	8	30	.200	10	60	T05
2N697	NPN	.600	.500	60	40	5	40	.150	10	50	T05
2N697A	NPN	.800	1.00	60	35	5	25	.001	5	50	T05
2N699	NPN	.600	.500	120	80	5	40	.150	10	50	T05
2N699A	NPN	.800	.500	120	80	5	40	.150	10	50	T05
2N702	NPN	.300	.050	25	25	5	20	.010	5	150	T018
2N703	NPN	.300	.050	25	25	5	40	.010	5	150	T018
2N707	NPN	.300	.100	56	28	4	12	.010	1	400	T018
2N707A	NPN	.500	.100	70	40	5	9	.010	1	70	T018
2N709A	NPN	.360	.100	50	20	5	40	.010	1	800	T018
2N718	NPN	.400	.400	60	40	5	40	.150	10	50	T018
2N721	PNP	.400	.200	50	35	5	20	.150	10	50	T018
2N722	PNP	.400	.200	50	35	5	20	.150	10	60	T018
2N722A	PNP	.400	.200	50	35	5	30	.150	10	96	T018
2N727	PNP	.300	.050	25	20	5	30	.010	1	150	T018
2N784	NPN	.300	.200	30	15	5	25	.010	1	200	T018
2N784A	NPN	.360	.200	40	20	5	25	.010	1	300	T018
2N917	NPN	.200	.050	30	15	3	20	.003	1	500	T072
2N918	NPN	.200	.050	30	15	3	20	.003	1	600	T072
2N919	NPN	.360	.220	25	15	5	20	.010	1	200	T018
2N920	NPN	.360	.220	25	15	5	40	.010	1	200	T018
2N921	NPN	.360	.200	50	20	5	20	.010	10	400	T018
2N922	NPN	.360	.200	50	20	5	40	.010	10	400	T018
2N929	NPN	.300	.030	45	45	5	60	.001	5	30	T018
2N930	NPN	.300	.030	45	45	5	15	.001	5	30	T018
2N957	NPN	.250	.100	40	20	5	45	.010	5	200	T018
2N988	NPN	.300	.220	20	10	3	20	.010	1	300	T018

2N995	NPN	.300	.220	20	10	3	20	.010	1	300	T018
2N995A	PNP	.360	.100	20	15	4	35	.020	1	100	T018
2N996	PNP	.360	.100	20	15	4	35	.020	1	100	T018
2N1069	NPN	50.0	4.00	60	45	9	10	1.50	4	1.2	T03
2N1070	NPN	50.0	4.00	60	45	9	10	1.50	4	1.2	T03
2N1132A	PNP	.600	.600	60	40	5	25	.001	5	60	T039
2N1132B	PNP	.600	.600	70	45	6	25	.001	5	60	T039
2N1335	NPN	.800	.300	120	90	4	10	.030	10	70	T039

TRANSISTORS

DEVICE TYPE NO.	POLARITY	P _D @ T _a =25°C		MAXIMUM RATINGS				ELECTRICAL CHARACTERISTICS				CASE
		WATTS	I _C AMPS	BV _{CEO}	BV _{CE}	BV _{ESD}	f _{RE} MIN.	I _C AMPS	V _{RE}	f MHZ *KHZ		
2N1336	NPN	.800	.300	120	90	4	10	.030	10	70	T039	
2N1337	NPN	.800	.300	120	90	4	10	.030	10	70	T039	
2N1338	NPN	.800	.300	80	50	3	10	.030	10	70	T039	
2N1339	NPN	.800	.300	120	100	3	10	.030	10	70	T039	
2N1340	NPN	.800	.300	120	100	3	10	.030	10	70	T039	
2N1341	NPN	.800	.300	1120	100	3	10	.030	10	70	T039	
2N1342	NPN	.800	.300	150	125	5	10	.030	10	70	T039	
2N1386	NPN	.300	.050	25	25	3	30	.010	1	25	T039	
2N1387	NPN	.300	.050	30	30	3	20	.010	1	25	T039	
2N1388	NPN	.300	.050	45	25	1.5	30	.001	6	50	T039	
2N1389	NPN	.300	.050	50	50	1.5	4	.001	6	20	T039	
2N1390	NPN	.300	.050	20	20	2	10	.001	6	20	T039	
2N1409	NPN	.800	.500	30	25	4	15	.150	10	50	T039	
2N1409A	NPN	.800	.500	30	25	4	15	.150	10	230	T039	
2N1410	NPN	.800	.500	45	30	4	30	.150	10	50	T039	
2N1410A	NPN	.800	.500	45	30	4	30	.150	10	230	T039	
2N1417	NPN	.150	.050	15	15	2	30	.001	6	1	T039	
2N1418	NPN	.150	.050	30	30	2	30	.001	6	1	T039	
2N1420	NPN	.600	1.00	60	30	5	100	.150	10	50	T039	
2N1470	NPN	55.0	3.00	60	60	3	15	1.00	5	1	T039	
2N1491	NPN	.500	.100	30	30	1	50	.015	20	200	T039	
2N1492	NPN	.500	.100	60	60	2	15	.015	20	200	T039	
2N1493	NPN	.500	.100	100	100	4.5	15	.015	20	200	T039	
2N1505	NPN	.800	.500	50	20	3	7	.100	28	70	T039	
2N1506	NPN	.800	.500	60	20	4	10	.100	28	140	T039	
2N1508A	NPN	.800	.500	80	50	5	10	.100	28	140	T039	
2N1507	NPN	.600	.100	60	30	5	100	.150	10	50	T039	
2N1613	NPN	.600	1.00	75	50	7	40	.150	10	60	T039	
2N1613A	NPN	1.00	1.00	75	50	7	40	.150	10	60	T039	
2N1613B	NPN	1.00	1.00	120	50	7	40	.150	10	60	T039	
2N1700	NPN	5.00	1.00	60	40	6	20	.100	4	400	T05	
2N1711	NPN	.800	1.00	75	50	7	100	.150	10	70	T039	
2N1711A	NPN	.800	1.00	75	50	7	100	.150	10	70	T039	
2N1711B	NPN	.800	1.00	120	50	7	100	.150	10	70	T039	
2N1716	NPN	.800	.750	90	60	6	40	.200	5	16	T039	
2N1717	NPN	.800	.750	150	100	6	40	.200	5	16	T039	
2N1838	NPN	.600	.500	45	20	5	40	.100	10	90	T039	
2N1839	NPN	.600	.500	45	20	4.5	12	.100	10	90	T039	
2N1840	NPN	.800	.500	25	15	5	10	.150	10	90	T039	
2N1893	NPN	.800	.500	120	80	7	40	.150	10	50	T039	
2N1893A	NPN	.800	.500	140	80	7	40	.150	10	100	T039	
2N1973	NPN	.800	.200	100	60	7	76	.001	5	60	T039	
2N1974	NPN	.800	.200	100	60	7	36	.001	5	50	T039	
2N1975	NPN	.800	.200	100	60	5	18	.001	5	40	T039	
2N1983	NPN	.600	1.00	50	25	5	70	.001	5	40	T039	
2N1986	NPN	.600	.500	50	25	5	60	.150	10	40	T039	
2N1987	NPN	.600	.500	50	25	5	20	.150	10	40	T039	
2N1988	NPN	.600	1.00	100	45	5	20	.001	5	40	T039	
2N1989	NPN	.600	1.00	100	45	5	10	.001	5	40	T039	
2N1990	NPN	.600	1.00	100	45	3	20	.030	10	40	T039	
2N1991	PNP	.800	.500	30	20	5	15	.150	10	40	T039	
2N2017	PNP	1.00	1.00	60	60	8	50	.200	10	10	T039	
2N2040	NPN	.600	.500	45	45	4	30	.200	6	2	T039	
2N2041	NPN	.600	.500	75	75	4	30	.200	6	2	T039	
2N2049	NPN	.800	.500	75	50	7	75	.001	5	50	T039	
2N2102	NPN	1.00	1.00	120	65	7	40	.150	10	60	T039	
2N2107	NPN	1.00	.500	60	60	8	30	.200	10	15	T039	
2N2175	PNP	.100	.050	6	6	6	30	20u	1.5	10	T039	
2N2176	PNP	.100	.050	6	6	6	30	20u	1.5	10	T018	
2N2177	PNP	.100	.050	6	6	6	15	20u	1.5	8	T039	

DEVICE TYPE NO.	POLARITY	P _D @ T _C =25°C	MAXIMUM RATINGS				ELECTRICAL CHARACTERISTICS					CASE
		WATTS	I _C AMPS	BV _{CEO}	BV _{CE}	BV _{ESD}	h _{FE} MIN.	I _C AMPS	V _{CE}	f _T MHZ *KHZ		
2N2178	PNP	.100	.050	6	8	6	15	20u	1.5	8	TO18	
2N2192B	NPN	.800	1.00	80	40	5	75	.010	10	50	TO39	
2N2193B	NPN	.800	1.00	80	50	8	30	.010	10	50	TO39	
2N2194	NPN	.800	1.00	80	40	5	15	.010	10	50	TO39	
2N2194A	NPN	.800	1.00	80	40	5	15	.010	10	50	TO39	
2N2194B	NPN	.800	1.00	80	40	5	15	.010	10	50	TO39	
2N2195B	NPN	.800	1.00	45	25	5	20	.150	10	50	TO39	
2N2218	NPN	.800	.800	60	30	5	40	.150	10	250	TO39	
2N2218A	NPN	.800	.800	75	40	6	40	.150	10	250	TO39	
2N2219	NPN	.800	.800	60	30	5	100	.150	10	250	TO39	
2N2219A	NPN	.800	.800	75	40	6	100	.150	10	300	TO39	
2N2221	NPN	.400	.800	60	30	5	40	.150	10	250	TO18	
2N2221A	NPN	.400	.800	75	40	6	40	.150	10	250	TO18	
2N2222	NPN	.400	.800	60	30	5	100	.150	10	250	TO18	
2N2222A	NPN	.400	.800	75	40	6	100	.150	10	300	TO18	
2N2224	NPN	.800	.500	65	40	5	35	.0001	10	250	TO39	
2N2237	NPN	.600	.500	40	20	6	40	1.00	1	100	TO39	
2N2256	NPN	.300	.100	7	7	1	17	.010	1	250	TO18	
2N2257	NPN	.300	.100	7	7	1	40	.010	1	250	TO18	
2N2270	NPN	1.00	1.00	80	45	7	50	.150	10	100	TO39	
2N2297	NPN	.800	1.00	80	35	7	40	.150	10	80	TO39	
2N2303	PNP	.800	.500	50	35	5	75	.001	5	60	TO39	
2N2309	NPN	.600	.500	30	30	5	40	.0002	4	30	TO39	
2N2380	NPN	.800	.500	80	40	5	20	.150	5	100	TO39	
2N2380A	NPN	.600	.500	80	40	5	20	.150	5	100	TO39	
2N2405	NPN	1.00	1.00	120	90	7	60	.150	10	120	TO39	
2N2440	NPN	.800	.500	120	80	7	70	.005	10	90	TO39	
2N2443	NPN	.800	.200	120	100	7	30	.001	5	50	TO39	
2N2475	NPN	.800	.100	15	6	4	20	.050	.5	600	TO18	
2N2476	NPN	.600	.500	60	20	5	20	.150	.4	250	TO39	
2N2477	NPN	.800	.500	60	20	5	40	.150	.4	250	TO39	
2N2478	NPN	.600	.500	120	40	5	30	.150	1.5	200	TO39	
2N2479	NPN	.600	.500	80	40	5	30	.150	1.5	150	TO39	

2N2479	NPN	.600	.500	80	40	5	30	.150	1.5	150	TO39
2N2483	NPN	.360	.050	60	60	6	80	.001	5	60	TO18
2N3484	NPN	.360	.050	60	60	6	150	.001	5	60	TO18
2N2484A	NPN	.360	.050	60	60	6	150	.001	5	15	TO18
2N2537	NPN	.800	.800	60	30	5	20	.001	10	250	TO39
2N2539	NPN	.500	.800	60	30	5	20	.001	10	250	TO18
2N2586	NPN	.300	.030	60	45	6	150	.001	5	45	TO18
2N2594	NPN	1.00	1.00	80	80	7	20	.010	5	40	TO39
2N2516	NPN	.300	.050	30	15	3	20	.003	1	500	TO18
2N2616	NPN	.300	.050	30	15	3	20	.003	1	600	TO18
2N2645	NPN	.500	.200	75	50	7	75	.001	5	50	TO18
2N2651	NPN	.360	.500	40	20	5	25	.010	1	350	TO18
2N2657	NPN	1.20	5.00	80	50	7	40	1.00	2	20	TO39
2N2658	NPN	1.20	5.00	100	80	7	40	1.00	2	20	TO39
2N2696	PNP	.360	.500	25	25	4	25	.010	10	100	TO18
2N2708	NPN	.200	.020	35	20	3	30	.002	15	1200	TO72
2N2784	NPN	.300	.020	15	6	4	40	.010	5	1000	TO18
2N2787	NPN	.800	.800	75	35	5	30	.020	20	250	TO39
2N2788	NPN	.800	.800	75	35	5	75	.020	20	250	TO39
2N2789	NPN	.800	.800	75	35	5	150	.020	20	150	TO39
2N2790	NPN	.500	.800	75	35	5	30	.020	20	250	TO18
2N2791	NPN	.500	.800	75	35	5	75	.020	20	250	TO18
2N2792	NPN	.500	.800	75	35	5	50	.020	20	250	TO18
2N2800	PNP	.800	.800	50	35	5	20	10u	10	120	TO39
2N2801	PNP	.800	.800	50	35	5	30	10u	10	120	TO39
2N2837	PNP	.500	.800	50	35	5	20	10u	10	120	TO18
2N2838	PNP	.500	.800	50	35	5	30	10u	10	120	TO18

DEVICE TYPE NO.	POLARITY	$P_D @ T_c=25^\circ\text{C}$	MAXIMUM RATINGS					ELECTRICAL CHARACTERISTICS				CASE
		WATTS	I_C AMPS	BV_{CBO}	BV_{CE}	BV_{EBO}	f_{TE} MIN.	I_C AMPS	V_{CE}	f MHZ *KHZ		
2N2845	NPN	.360	.500	60	30	5	30	.150	10	350	T018	
2N2846	NPN	.800	.500	60	30	5	30	.150	10	350	T039	
2N2847	NPN	.360	.500	60	30	5	40	.150	10	250	T018	
2N2848	NPN	.800	.500	60	30	5	40	.150	10	250	T039	
2N2850-1	NPN	.850	3.00	100	80	5	40	1.00	1	30	T039	
2N2851-1	NPN	.850	3.00	100	80	5	40	1.00	1	30	T039	
2N2852-1	NPN	.850	3.00	100	80	5	20	1.00	1	30	T039	
2N2853-1	NPN	.850	3.00	60	40	5	40	1.00	1	30	T039	
2N2854-1	NPN	.850	3.00	60	40	5	100	1.00	1	30	T039	
2N2855-1	NPN	.850	3.00	60	40	5	40	1.00	1	30	T039	
2N2856-1	NPN	.850	3.00	60	40	5	20	1.00	1	30	T039	
2N2863	NPN	.800	1.00	60	25	5	20	.010	15	100	T039	
2N2864	NPN	.800	1.00	60	25	5	12	.010	15	160	T039	
2N2865	NPN	.200	.050	25	13	3	20	.004	10	600	T072	
2N2866	NPN	.800	1.00	60	40	7	30	.010	10	50	T039	
2N2868	NPN	.800	.300	40	20	4	20	1.00	10	400	T039	
2N2884	NPN	.800	.300	40	20	4	20	1.00	10	400	T039	
2N2890	NPN	.800	3.00	100	80	5	30	.050	10	50	T039	
2N2894A	PNP	.360	.200	12	12	4.5	40	.030	.5	800	T018	
2N2904	PNP	.600	.600	60	40	5	25	.001	10	200	T039	
2N2904A	PNP	.600	.600	60	40	5	40	.001	10	200	T039	
2N2405	PNP	.800	.600	60	40	5	60	.001	10	200	T039	
2N2405A	PNP	.600	.600	60	40	5	100	.001	10	200	T039	
2N2406	PNP	.400	.600	60	40	5	25	.001	10	200	T018	
2N2406A	PNP	.400	.600	60	40	5	40	.001	10	200	T018	
2N2407	PNP	.400	.600	60	40	5	30	.001	10	200	T018	
2N2907A	PNP	.400	.600	60	40	5	100	.001	10	200	T018	
2N2927	PNP	.800	.500	25	25	4	25	.010	10	100	T039	
2N2958	NPN	.600	.600	80	20	5	40	.150	10	250	T039	
2N2959	NPN	.800	.600	60	20	5	100	.150	10	250	T039	
2N2986	NPN	1.00	3.00	185	120	8	40	1.00	5	60	T039	
2N2985	NPN	1.00	3.00	185	120	8	40	1.00	5	60	T039	
2N2987	NPN	1.00	1.00	95	80	7	25	2.00	5	30	T039	
2N2988	NPN	1.00	1.00	155	100	7	25	.200	5	30	T039	
2N2989	NPN	1.00	1.00	95	80	7	60	.200	5	30	T039	
2N2990	NPN	1.00	1.00	155	100	7	60	.200	5	30	T039	
2N2991	NPN	2.00	1.00	95	80	7	24	.200	5	30	T039	
2N3019	NPN	.800	1.00	140	80	7	100	.150	10	100	T039	
2N3020	NPN	.800	1.00	140	80	7	40	.150	10	80	T039	
2N3036	NPN	.800	1.20	120	80	7	40	.010	10	50	T039	
2N3053	NPN	5.00	.700	60	40	5	50	.150	10	100	T039	
2N3064	NPN	25.0	4.00	90	60	7	25	.500	4	3	T066	
2N3065	NPN	115	15.0	100	70	7	20	4.00	4	2.5	T03	
2N3073	PNP	.360	.500	60	60	4	25	.010	10	130	T018	
2N3081	PNP	.600	.600	70	50	6	30	.150	10	150	T039	
2N3107	NPN	.800	1.00	100	60	7	60	.001	10	70	T039	
2N3108	NPN	.800	1.00	100	60	7	20	.001	10	60	T039	
2N3109	NPN	.800	1.00	80	40	7	60	.001	10	70	T039	
2N3110	NPN	.800	1.00	80	40	7	20	.001	10	60	T039	
2N3114	NPN	.800	.200	150	150	5	25	.001	5	40	T039	
2N3224	PNP	.700	1.00	100	100	6	20	.001	5	60	T039	
2N3225	PNP	.700	1.00	100	100	6	40	.001	5	80	T039	
2N3226	NPN	75.0	5.00	35	35	6	20	2.00	3	*30	T03	
2N3237	NPN	200	20.0	90	75	5	12	10.0	8	1	T03	
2N3240	NPN	150	15.0	160	160	8	8.5	10.0	10	2	T03	
2N3306	PNP	.600	.100	50	40	6	70	.001	5	20	T039	
2N3307	PNP	.300	.050	40	35	3	40	.002	10	300	T018	
2N3308	PNP	.300	.050	30	25	3	25	.002	10	300	T018	
2N3326	NPN	.800	.800	60	45	5	35	.010	10	250	T039	
2N3337	NPN	.300	.050	40	40	4	30	.004	10	400	T072	
2N3338	NPN	.300	.050	40	40	4	30	.004	10	400	T072	
2N3339	NPN	.300	.050	40	40	4	30	.004	10	400	T072	

DEVICE TYPE NO.	POLARITY	MAXIMUM RATINGS					ELECTRICAL CHARACTERISTICS				CASE
		P _a @ T _C =25°C WATTS	I _C AMPS	BV _{CEO}	BV _{CE}	BV _{ESD}	f _{HE} MIN.	I _C AMPS	V _{CE}	f MHZ *KHZ	
2N3420	NPN	1.00	3.00	85	80	8	40	1.00	2	40	T05
2N3421	NPN	1.00	3.00	125	80	8	40	1.00	2	40	T05
2N3439	NPN	1.00	1.00	450	350	7	40	.020	10	15	T039
2N3440	NPN	1.00	1.00	300	250	7	40	.020	10	15	T039
2N3442	NPN	.117	10.0	160	140	7	20	.200	4	*80	T03
2N3444	NPN	1.00	1.00	80	50	5	20	.500	1	150	T039
2N3445	NPN	.115	7.50	80	60	6	20	3.00	5	10	T03
2N3446	NPN	.115	7.50	100	80	10	20	3.00	5	10	T03
2N3447	NPN	.115	7.50	80	60	6	40	5.00	5	10	T03
2N3448	NPN	.115	7.50	100	80	10	40	5.00	5	10	T03
2N3451	PNP	.300	.050	6	6	4	30	.010	.3	300	T018
2N3467	PNP	1.00	1.00	40	40	5	40	.500	1	175	T039
2N3468	PNP	1.00	1.00	50	50	5	25	.500	1	150	T039
2N3469	NPN	1.20	5.00	35	25	5	100	.500	1	20	T039
2N3478	NPN	.200	.050	30	15	2	25	.002	8	750	T072
2N3494	PNP	.600	.100	80	80	4.5	40	.010	10	200	T039
2N3495	PNP	.600	.100	120	120	4.5	40	.010	10	150	T039
2N3498	NPN	1.00	.500	100	100	6	40	.150	10	150	T039
2N3499	NPN	1.00	.500	100	100	6	100	.150	10	150	T039
2N3500	NPN	1.00	.300	150	150	6	40	.150	10	150	T039
2N3501	NPN	1.00	.300	150	150	6	100	.150	10	150	T039
2N3506	NPN	1.00	3.00	60	40	5	40	1.50	2	60	T039
2N3507	NPN	1.00	3.00	80	50	5	30	.001	2	60	T039
2N3510	NPN	.360	.500	40	10	6	25	.015	10	350	T018
2N3511	NPN	.360	.500	40	15	6	30	.150	1	450	T018
2N3545	PNP	.360	.200	20	20	5	40	.001	1	250	T018
2N3550	PNP	.400	.100	60	45	10	200	.10	5	60	T018
2N3554	NPN	.600	1.20	60	30	5	25	.750	1	150	T039
2N3563	NPN	.200	.050	30	12	2	20	.008	10	600	T0106
2N3564	NPN	.200	.100	30	15	4	20	.015	10	400	T0106
2N3565	NPN	.200	.050	30	25	6	120	.001	5	40	T0106
2N3566	NPN	.300	.200	40	30	5	80	.002	10	40	T0105
2N3567	NPN	.300	.500	80	40	5	40	.150	1	60	T0105
2N3568	NPN	.300	.500	80	60	5	40	.150	1	60	T0105
2N3569	NPN	.300	.500	80	40	5	100	.150	1	1000	T0105
2N3572	NPN	.200	.050	25	13	3	20	.005	6	1000	T072
2N3576	PNP	.360	.200	20	15	5	40	.010	.5	400	T018
2N3600	NPN	.200	.050	30	15	3	20	.002	6	850	T072
2N3634	PNP	1.00	1.00	140	140	5	50	.050	10	150	T039
2N3635	PNP	1.00	1.00	140	140	5	100	.050	10	200	T039
2N3636	PNP	1.00	1.00	175	175	5	50	.050	10	150	T039
2N3637	PNP	1.00	1.00	175	175	5	100	.050	10	200	T039
2N3638	PNP	.300	.500	25	25	4	25	.010	10	100	T0105
2N3638A	PNP	.300	.500	25	25	4	100	.010	10	150	T0105
2N3639	PNP	.200	.800	6	6	4	20	.050	1	500	T0106
2N3641	NPN	.350	.500	60	30	5	40	.150	10	150	T0106
2N3642	NPN	.350	.500	60	45	5	40	.150	10	150	T0105
2N3643	NPN	.350	.500	60	30	5	100	.150	10	250	T0105
2N3644	PNP	.300	.500	45	45	5	80	.001	10	200	T0105
2N3645	PNP	.300	.500	60	60	5	80	.001	10	200	T0105
2N3665	NPN	5.00	1.00	120	80	8	40	.150	10	60	T039
2N3666	NPN	5.00	1.00	120	80	8	100	.150	10	60	T039
2N3667	NPN	.117	15.0	50	50	5	15	8.00	3	0.5	T03
2N3671	PNP	.600	.600	60	50	5	55	.010	10	200	T039
2N3675	NPN	8.80	3.00	90	55	7	12	1.00	10	1	T039
2N3676	NPN	8.80	3.00	90	90	7	12	1.00	1	1	T039
2N3679	NPN	.800	.800	75	55	6	40	.150	10	250	T039
2N3681	NPN	.200	.025	10	7	2	20	.002	6	1000	T072
2N3683	NPN	.200	.030	30	12	2	30	.008	10	1000	T072
2N3691	NPN	.200	.030	35	20	4	40	.005	10	200	T0106
2N3692	NPN	.200	.030	35	20	4	100	.005	10	200	T0106
2N3693	NPN	.200	.030	45	45	4	40	.010	10	200	T0106
2N3701	NPN	.500	1.00	140	80	7	30	.001	5	80	T018
2N3712	NPN	.800	2.00	140	150	5	25	.030	10	40	T039

2N3545	PNP	.360	.200	20	20	5	40	.001	1	250	T018
2N3550	PNP	.400	.100	60	45	10	200	.10	5	60	T018
2N3554	NPN	.600	1.20	60	30	5	25	.750	1	150	T039
2N3563	NPN	.200	.050	30	12	2	20	.008	10	600	T0106
2N3564	NPN	.200	.100	30	15	4	20	.015	10	400	T0106
2N3565	NPN	.200	.050	30	25	6	120	.001	5	40	T0106
2N3566	NPN	.300	.200	40	30	5	80	.002	10	40	T0105
2N3567	NPN	.300	.500	80	40	5	40	.150	1	60	T0105
2N3568	NPN	.300	.500	80	60	5	40	.150	1	60	T0105
2N3569	NPN	.300	.500	80	40	5	100	.150	1	1000	T0105
2N3572	NPN	.200	.050	25	13	3	20	.005	6	1000	T072
2N3576	PNP	.360	.200	20	15	5	40	.010	.5	400	T018
2N3600	NPN	.200	.050	30	15	3	20	.002	6	850	T072
2N3634	PNP	1.00	1.00	140	140	5	50	.050	10	150	T039
2N3635	PNP	1.00	1.00	140	140	5	100	.050	10	200	T039
2N3636	PNP	1.00	1.00	175	175	5	50	.050	10	150	T039
2N3637	PNP	1.00	1.00	175	175	5	100	.050	10	200	T039
2N3638	PNP	.300	.500	25	25	4	25	.010	10	100	T0105
2N3638A	PNP	.300	.500	25	25	4	100	.010	10	150	T0105
2N3639	PNP	.200	.800	6	6	4	20	.050	1	500	T0106
2N3641	NPN	.350	.500	60	30	5	40	.150	10	150	T0106
2N3642	NPN	.350	.500	60	45	5	40	.150	10	150	T0105
2N3643	NPN	.350	.500	60	30	5	100	.150	10	250	T0105
2N3644	PNP	.300	.500	45	45	5	80	.001	10	200	T0105
2N3645	PNP	.300	.500	60	60	5	80	.001	10	200	T0105
2N3665	NPN	5.00	1.00	120	80	8	40	.150	10	60	T039
2N3666	NPN	5.00	1.00	120	80	8	100	.150	10	60	T039
2N3667	NPN	.117	15.0	50	50	5	15	8.00	3	0.5	T03
2N3671	PNP	.600	.600	60	50	5	55	.010	10	200	T039
2N3675	NPN	8.80	3.00	90	55	7	12	1.00	10	1	T039
2N3676	NPN	8.80	3.00	90	90	7	12	1.00	1	1	T039
2N3679	NPN	.800	.800	75	55	6	40	.150	10	250	T039
2N3681	NPN	.200	.025	10	7	2	20	.002	6	1000	T072
2N3683	NPN	.200	.030	30	12	2	30	.008	10	1000	T072
2N3691	NPN	.200	.030	35	20	4	40	.005	10	200	T0106
2N3692	NPN	.200	.030	35	20	4	100	.005	10	200	T0106
2N3693	NPN	.200	.030	45	45	4	40	.010	10	200	T0106
2N3701	NPN	.500	1.00	140	80	7	30	.001	5	80	T018
2N3712	NPN	.800	2.00	140	150	5	25	.030	10	40	T039

TYPE NO.	Maximum Ratings					Electrical Characteristics @ T _A = 25°C					CASE
	P _D	I _C	BV _{CEO}	LV _{CEO}	BV _{EB0}	hFE @ VCE @ IC	VCE(sat) @ IC/IB	Cob	fT @ IC		
	@ T _A = 25°C					min./max.	max.	max.	min.		
NPN	@ T _A = 25°C					min./max.	max.	max.	min.		
2N 3109	800mW	150mA	80V	40V	7V	100/300 @ 1V @ 150mA	0.26V @ 150/15.0mA	25pF	70MHz @ 50mA	TO-5	
2N 3110	800mW	150mA	80V	40V	7V	40/120 @ 1V @ 150mA	0.26V @ 150/15.0mA	25pF	60MHz @ 50mA	TO-5	
2N 2414	360mW	500mA	25V	25V	5V	75/225 @ 4.5V @ 2mA	0.30V @ 50/ 5.0mA	—	—	TO-92B	
2N 3415	360mW	500mA	25V	25V	5V	180/540 @ 4.5V @ 2mA	0.30V @ 50/ 5.0mA	—	—	TO-92B	
2N 3499	1W	500mA	100V	100V	6V	40/120 @ 10V @ 150mA	0.25V @ 50/ 5.0mA	10pF	150MHz @ 20mA	TO-39	
2N 3499	1W	500mA	100V	100V	6V	100/300 @ 10V @ 150mA	0.25V @ 50/ 5.0mA	10pF	150MHz @ 20mA	TO-39	
2N 3565	300mW	200mA	40V	30V	5V	160/600 @ 10V @ 150mA	1.00V @ 100/10.0mA	25pF	40MHz @ 30mA	TO-106	
2N 3567	300mW	500mA	80V	40V	6V	40/120 @ 1V @ 150mA	0.25V @ 150/15.0mA	20pF	60MHz @ 50mA	TO-106	
2N 3568	300mW	500mA	80V	80V	5V	40/120 @ 1V @ 150mA	0.25V @ 150/15.0mA	20pF	60MHz @ 50mA	TO-106	
2N 3569	300mW	500mA	80V	40V	5V	100/300 @ 1V @ 150mA	0.25V @ 150/15.0mA	20pF	60MHz @ 50mA	TO-106	
2N 3641	350mW	500mA	60V	30V	5V	40/120 @ 10V @ 150mA	0.22V @ 150/15.0mA	8pF	250MHz @ 50mA	TO-106	
2N 3642	350mW	500mA	60V	45V	5V	40/120 @ 10V @ 150mA	0.22V @ 150/15.0mA	8pF	250MHz @ 50mA	TO-106	
2N 3643	350mW	500mA	60V	30V	5V	100/300 @ 10V @ 150mA	0.22V @ 150/15.0mA	8pF	250MHz @ 50mA	TO-106	
2N 3678	800mW	800mA	75V	55V	6V	40/120 @ 10V @ 150mA	0.40V @ 150/15.0mA	8pF	250MHz @ 20mA	TO-39	
2N 3704	360mW	800mA	50V	30V	5V	100/300 @ 2V @ 50mA	0.60V @ 100/10.0mA	—	100MHz @ 50mA	TO-92B	
2N 3705	360mW	800mA	50V	30V	5V	50/150 @ 2V @ 50mA	0.80V @ 100/10.0mA	—	100MHz @ 50mA	TO-92B	
2N 3705	350mW	800mA	40V	20V	5V	30/500 @ 2V @ 50mA	1.00V @ 100/10.0mA	—	100MHz @ 50mA	TO-92B	
2N 3724	800mW	500mA	50V	30V	6V	60/150 @ 1V @ 100mA	0.42V @ 500/50.0mA	12pF	300MHz @ 50mA	TO-5	
2N 3724A	1W	1.2A	50V	30V	6V	60/150 @ 1V @ 100mA	0.42V @ 500/50.0mA	12pF	300MHz @ 50mA	TO-5	
2N 3725	800mW	500mA	80V	50V	6V	60/150 @ 1V @ 100mA	0.52V @ 500/50.0mA	10pF	300MHz @ 50mA	TO-5	
2N 3725A	1W	1.2A	80V	50V	6V	60/150 @ 1V @ 100mA	0.52V @ 500/50.0mA	10pF	300MHz @ 50mA	TO-5	
2N 3845	300mW	—	70V	50V	—	40/260 @ 10V @ 150mA	0.50V @ 150/15.0mA	—	50MHz	TO-5	
2N 4140	300mW	500mA	60V	30V	5V	40/120 @ 10V @ 150mA	0.40V @ 150/15.0mA	8pF	250MHz @ 20mA	TO-106	
2N 4141	300mW	500mA	60V	30V	5V	100/300 @ 10V @ 150mA	0.40V @ 150/15.0mA	8pF	250MHz @ 20mA	TO-106	
2N 4237	#6W	3A	50V	40V	5V	30/150 @ 1V @ 250mA	0.30V @ 500/50.0mA	100pF	2MHz @ 100mA	TO-5	
2N 4238	#6W	3A	80V	50V	6V	30/150 @ 1V @ 250mA	0.30V @ 500/50.0mA	100pF	2MHz @ 100mA	TO-5	
2N 4643	800mW	800mA	120V	80V	7V	100/300 @ 10V @ 150mA	0.25V @ 150/15.0mA	12pF	150MHz @ 50mA	TO-39	
2N 4644	220mW	500mA	80V	40V	5V	40/120 @ 1V @ 150mA	0.26V @ 150/15.0mA	25pF	60MHz @ 50mA	TO-106	
2N 5449	360mW	800mA	40V	20V	5V	100/300 @ 2V @ 50mA	0.60V @ 100/10.0mA	12pF	100MHz @ 50mA	TO-92F	
2N 5815	500mW	750mA	50V	40V	5V	100/200 @ 2V @ 2mA	0.75V @ 500/50.0mA	15pF	120MHz @ 50mA	TO-92F†	
2N 6820	500mW	750mA	70V	60V	5V	50/120 @ 2V @ 2mA	0.75V @ 500/50.0mA	15pF	100MHz @ 50mA	TO-92F†	