

| 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 |
| 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 | PNP | .360 | .100 | 20 | 15 | 4 | 35 | .020 | 1 | 100 | T018 |
| 2N995A | PNP | .360 | .100 | 20 | 15 | 4 | 35 | .020 | 1 | 100 | T018 |
| 2N996 | PNP | .360 | .100 | 15 | 12 | 4 | 35 | .020 | 1 | 160 | 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 |

SILICON TRANSISTORS

| DEVICE TYPE NO. | POLARITY | P _D @ T _C =25°C | MAXIMUM RATINGS | | | | ELECTRICAL CHARACTERISTICS | | | | CASE |
|-----------------|----------|---------------------------------------|---------------------|-------------------|------------------|-------------------|----------------------------|---------------------|-----------------|------------|------|
| | | WATTS | I _C AMPS | BV _{CS0} | BV _{CE} | BV _{EB0} | h _{FE} MIN. | I _C AMPS | V _{CE} | 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 | .600 | .500 | 30 | 25 | 4 | 15 | .150 | 10 | 50 | T039 |
| 2N1409A | NPN | .800 | .500 | 30 | 25 | 4 | 15 | .150 | 10 | 230 | T039 |
| 2N1410 | NPN | .600 | .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 | T03 |
| 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 |
| 2N1506A | 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 | .600 | .500 | 30 | 20 | 5 | 15 | .150 | 10 | 40 | T039 |
| 2N2017 | NPN | 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 |

SILICON TRANSISTORS

82 DE 0258354 0000041 5

| DEVICE TYPE NO. | POLARITY | MAXIMUM RATINGS | | | | | ELECTRICAL CHARACTERISTICS | | | | CASE |
|-----------------|----------|------------------------------------------------|------------------------|-------------------|------------------|-------------------|----------------------------|------------------------|-----------------|------------------|------|
| | | P _b @ T _c =25°C WATTS | I _c AMPS | BV _{CB0} | BV _{CE} | BV _{EB0} | h _{FE} MIN. | I _c AMPS | V _{CE} | f MHZ *KHZ | |
| 2N2178 | PNP | .100 | .050 | 6 | 6 | 6 | 15 | 20u | 1.5 | 8 | T018 |
| 2N2192B | NPN | .800 | 1.00 | 60 | 40 | 5 | 75 | .010 | 10 | 50 | T039 |
| 2N2193B | NPN | .800 | 1.00 | 80 | 50 | 8 | 30 | .010 | 10 | 50 | T039 |
| 2N2194 | NPN | .800 | 1.00 | 60 | 40 | 5 | 15 | .010 | 10 | 50 | T039 |
| 2N2194A | NPN | .800 | 1.00 | 60 | 40 | 5 | 15 | .010 | 10 | 50 | T039 |
| 2N2194B | NPN | .800 | 1.00 | 60 | 40 | 5 | 15 | .010 | 10 | 50 | T039 |
| 2N2195B | NPN | .800 | 1.00 | 45 | 25 | 5 | 20 | .150 | 10 | 50 | T039 |
| 2N2218 | NPN | .800 | .800 | 60 | 30 | 5 | 40 | .150 | 10 | 250 | T039 |
| 2N2218A | NPN | .800 | .800 | 75 | 40 | 6 | 40 | .150 | 10 | 250 | T039 |
| 2N2219 | NPN | .800 | .800 | 60 | 30 | 5 | 100 | .150 | 10 | 250 | T039 |
| 2N2219A | NPN | .800 | .800 | 75 | 40 | 6 | 100 | .150 | 10 | 300 | T039 |
| 2N2221 | NPN | .400 | .800 | 60 | 30 | 5 | 40 | .150 | 10 | 250 | T018 |
| 2N2221A | NPN | .400 | .800 | 75 | 40 | 6 | 40 | .150 | 10 | 250 | T018 |
| 2N2222 | NPN | .400 | .800 | 60 | 30 | 5 | 100 | .150 | 10 | 250 | T018 |
| 2N2222A | NPN | .400 | .800 | 75 | 40 | 6 | 100 | .150 | 10 | 300 | T018 |
| 2N2224 | NPN | .800 | .500 | 65 | 40 | 5 | 35 | .0001 | 10 | 250 | T039 |
| 2N2237 | NPN | .600 | .500 | 40 | 20 | 6 | 40 | 1.00 | 1 | 100 | T039 |
| 2N2256 | NPN | .300 | .100 | 7 | 7 | 1 | 17 | .010 | 1 | 250 | T018 |
| 2N2257 | NPN | .300 | .100 | 7 | 7 | 1 | 40 | .010 | 1 | 250 | T018 |
| 2N2270 | NPN | 1.00 | 1.00 | 60 | 45 | 7 | 50 | .150 | 10 | 100 | T039 |
| 2N2297 | NPN | .800 | 1.00 | 80 | 35 | 7 | 40 | .150 | 10 | 60 | T039 |
| 2N2303 | PNP | .800 | .500 | 50 | 35 | 5 | 75 | .001 | 5 | 60 | T039 |
| 2N2309 | NPN | .600 | .500 | 30 | 30 | 5 | 40 | .0002 | 4 | 30 | T039 |
| 2N2380 | NPN | .600 | .500 | 80 | 40 | 5 | 20 | .150 | 5 | 100 | T039 |
| 2N2380A | NPN | .600 | .500 | 80 | 40 | 5 | 20 | .150 | 5 | 100 | T039 |
| 2N2405 | NPN | 1.00 | 1.00 | 120 | 90 | 7 | 60 | .150 | 10 | 120 | T039 |
| 2N2440 | NPN | .800 | .500 | 120 | 80 | 7 | 70 | .005 | 10 | 90 | T039 |
| 2N2443 | NPN | .800 | .200 | 120 | 100 | 7 | 30 | .001 | 5 | 50 | T039 |
| 2N2475 | NPN | .600 | .100 | 15 | 6 | 4 | 20 | .050 | .5 | 600 | T018 |
| 2N2476 | NPN | .600 | .500 | 60 | 20 | 5 | 20 | .150 | .4 | 250 | T039 |
| 2N2477 | NPN | .600 | .500 | 60 | 20 | 5 | 40 | .150 | .4 | 250 | T039 |
| 2N2478 | NPN | .600 | .500 | 120 | 40 | 5 | 30 | .150 | 1.5 | 200 | T039 |
| 2N2479 | NPN | .600 | .500 | 80 | 40 | 5 | 30 | .150 | 1.5 | 150 | T039 |
| 2N2483 | NPN | .360 | .050 | 60 | 60 | 6 | 80 | .001 | 5 | 60 | T018 |
| 2N3484 | NPN | .360 | .050 | 60 | 60 | 6 | 150 | .001 | 5 | 60 | T018 |
| 2N2484A | NPN | .360 | .050 | 60 | 60 | 6 | 150 | .001 | 5 | 15 | T018 |
| 2N2537 | NPN | .800 | .800 | 60 | 30 | 5 | 20 | .001 | 10 | 250 | T039 |
| 2N2539 | NPN | .500 | .800 | 60 | 30 | 5 | 20 | .001 | 10 | 250 | T018 |
| 2N2586 | NPN | .300 | .030 | 60 | 45 | 6 | 150 | .001 | 5 | 45 | T018 |
| 2N2594 | NPN | 1.00 | 1.00 | 80 | 80 | 7 | 20 | .010 | 5 | 40 | T039 |
| 2N2516 | NPN | .300 | .050 | 30 | 15 | 3 | 20 | .003 | 1 | 500 | T018 |
| 2N2616 | NPN | .300 | .050 | 30 | 15 | 3 | 20 | .003 | 1 | 600 | T018 |
| 2N2645 | NPN | .500 | .200 | 75 | 50 | 7 | 75 | .001 | 5 | 50 | T018 |
| 2N2651 | NPN | .360 | .500 | 40 | 20 | 5 | 25 | .010 | 1 | 350 | T018 |
| 2N2657 | NPN | 1.20 | 5.00 | 80 | 50 | 7 | 40 | 1.00 | 2 | 20 | T039 |
| 2N2658 | NPN | 1.20 | 5.00 | 100 | 80 | 7 | 40 | 1.00 | 2 | 20 | T039 |
| 2N2696 | PNP | .360 | .500 | 25 | 25 | 4 | 25 | .010 | 10 | 100 | T018 |
| 2N2708 | NPN | .200 | .020 | 35 | 20 | 3 | 30 | .002 | 15 | 1200 | T072 |
| 2N2784 | NPN | .300 | .020 | 15 | 6 | 4 | 40 | .010 | 5 | 1000 | T018 |
| 2N2787 | NPN | .800 | .800 | 75 | 35 | 5 | 30 | .020 | 20 | 250 | T039 |
| 2N2788 | NPN | .800 | .800 | 75 | 35 | 5 | 75 | .020 | 20 | 250 | T039 |
| 2N2789 | NPN | .800 | .800 | 75 | 35 | 5 | 150 | .020 | 20 | 150 | T039 |
| 2N2790 | NPN | .500 | .800 | 75 | 35 | 5 | 30 | .020 | 20 | 250 | T018 |
| 2N2791 | NPN | .500 | .800 | 75 | 35 | 5 | 75 | .020 | 20 | 250 | T018 |
| 2N2792 | NPN | .500 | .800 | 75 | 35 | 5 | 50 | .020 | 20 | 250 | T018 |
| 2N2800 | PNP | .800 | .800 | 50 | 35 | 5 | 20 | 10u | 10 | 120 | T039 |
| 2N2801 | PNP | .800 | .800 | 50 | 35 | 5 | 30 | 10u | 10 | 120 | T039 |
| 2N2837 | PNP | .500 | .800 | 50 | 35 | 5 | 20 | 10u | 10 | 120 | T018 |
| 2N2838 | PNP | .500 | .800 | 50 | 35 | 5 | 30 | 10u | 10 | 120 | T018 |

| DEVICE TYPE NO. | POLARITY | P _d @ T _c =25°C | MAXIMUM RATINGS | | | | ELECTRICAL CHARACTERISTICS | | | | CASE |
|-----------------|----------|---------------------------------------|---------------------|-------------------|------------------|-------------------|----------------------------|---------------------|-----------------|------------|------|
| | | WATTS | I _c AMPS | BV _{CB0} | BV _{CE} | BV _{EB0} | h _{FE} 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 |
| 2N2868 | NPN | .800 | 1.00 | 60 | 40 | 7 | 30 | .010 | 10 | 50 | T039 |
| 2N2883 | 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 | 60 | 5 | 40 | .001 | 10 | 200 | T039 |
| 2N2405 | PNP | .600 | .600 | 60 | 40 | 5 | 50 | .001 | 10 | 200 | T039 |
| 2N2405A | PNP | .600 | .600 | 60 | 60 | 5 | 100 | .001 | 10 | 200 | T039 |
| 2N2406 | PNP | .400 | .600 | 60 | 40 | 5 | 25 | .001 | 10 | 200 | T018 |
| 2N2406A | PNP | .400 | .600 | 60 | 60 | 5 | 40 | .001 | 10 | 200 | T018 |
| 2N2407 | PNP | .400 | .600 | 60 | 40 | 5 | 30 | .001 | 10 | 200 | T018 |
| 2N2907A | PNP | .400 | .600 | 60 | 60 | 5 | 100 | .001 | 10 | 200 | T018 |
| 2N2927 | PNP | .800 | .500 | 25 | 25 | 4 | 25 | .010 | 10 | 100 | T039 |
| 2N2958 | NPN | .600 | .600 | 60 | 20 | 5 | 40 | .150 | 10 | 250 | T039 |
| 2N2959 | NPN | .600 | .600 | 60 | 20 | 5 | 100 | .150 | 10 | 250 | T039 |
| 2N2986 | 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 |
| 2N3054 | NPN | 25.0 | 4.00 | 90 | 60 | 7 | 25 | .500 | 4 | 3 | T066 |
| 2N3055 | 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 |

SILICON TRANSISTORS

82 DE 0258354 0000043 9

| DEVICE TYPE NO. | POLARITY | P_o @ $T_c=25^\circ\text{C}$ | 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 | |
| 2N3420 | NPN | 1.00 | 3.00 | 85 | 60 | 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 | .800 | 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 |
| 2N3678 | 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 |