

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | Cob max (pF) | COMPLEMENTARY TYPE |
|----------|----------|--------|---------------------|--------------------|----------------------|-----|------|---------------------|---------------------|----------|--------------------|--------------------------|--------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| BC 119 | N | TO-39 | 800 | 1 | 30 | 40 | 120 | 150 | 1 | 0.35 | 0.15 | 40 | 25 | BC 139 |
| BC 138 | N | TO-39 | 800 | 1 | 30 | 35 | - | 100 | 10 | 1.5 | 1 | 40 | 25 | - |
| BC 139 | P | TO-39 | 700 | 0.5 | 40 | 40 | - | 100 | 10 | 0.8 | 0.3 | - | 6+ | BC 119 |
| BC 140 | N | TO-39 | 800 | 1 | 40 | 40 | 250# | 100 | 1 | 1 | 1 | 50 | 25 | BC 160 |
| BC 141 | N | TO-39 | 800 | 1 | 60 | 40 | 250# | 100 | 1 | 1 | 1 | 50 | 25 | BC 161 |
| BC 142 | N | TO-39 | 800 | 1 | 60 | 20 | - | 200 | 2 | 0.4 | 0.2 | 40 | 25 | BC 143 |
| BC 143 | P | TO-39 | 800 | 1 | 60 | 20 | - | 300 | 1 | 0.6 | 0.2 | 60 | 20 | BC 142 |
| BC 144 | N | TO-39 | 800 | 1 | 40 | 20 | - | 300 | 1 | 0.6 | 0.5 | 100+ | 20 | - |
| BC 160 | P | TO-39 | 800 | 1 | 40 | 40 | 250# | 100 | 1 | 1 | 1 | 50 | 30 | BC 140 |
| BC 161 | P | TO-39 | 800 | 1 | 60 | 40 | 250# | 100 | 1 | 1 | 1 | 50 | 30 | BC 141 |
| BC 185 | N | TO-39 | 700 | 0.5 | 40 | 40 | - | 100 | 10 | 0.45 | 0.3 | 200 | 8 | - |
| BC 210 | N | TO-18 | 450 | 0.7 | 25 | 20 | 120 | 150 | 1 | - | - | 100 | 8 | - |
| BC 211 | N | TO-39 | 800 | 1 | 40 | 40 | 250# | 150 | 2 | 1 | 1 | 50 | 25 | BC 313 |
| BC 211A | N | TO-39 | 800 | 1 | 60 | 40 | 250# | 150 | 2 | 1 | 1 | 50 | 25 | BC 313A |
| BC 215 | P | TO-18 | 400 | 0.5 | 30 | 40 | 300# | 150 | 10 | 0.9+ | 0.5 | 150 | 8 | - |
| BC 223 | N | TO-92F | 360 | 0.4 | 30 | 100 | 450# | 50 | 2 | 0.3 | 0.1 | 100 | 10 | - |
| BC 231 | P | TO-92B | 625 | 0.4 | 30 | 100 | 450 | 50 | 5 | 0.25 | 0.05 | 100 | 10 | BC 232 |
| BC 232 | N | TO-92B | 625 | 0.4 | 30 | 100 | 450 | 50 | 5 | 0.3 | 0.1 | 100 | 10 | BC 231 |
| BC 284 | N | TO-18 | 500 | 0.2 | 40 | 100 | 600 | 10 | 10 | 1 | 0.1 | 50 | 20 | - |
| BC 286 | N | TO-39 | 800 | 1 | 60 | 20 | 180 | 500 | 2 | 1 | 1 | 150+ | 11+ | BC 287 |
| BC 287 | P | TO-39 | 800 | 1 | 60 | 20 | 200 | 500 | 2 | 1 | 1 | 140+ | 18+ | BC 286 |
| BC 294 | P | TO-39 | 600 | 0.6 | 60 | 100 | 300 | 150 | 10 | 0.4 | 0.15 | 100 | - | - |
| BC 297 | P | TO-18 | 375 | 1 | 45 | 75 | 260# | 100 | 1 | 0.7 | 0.5 | 250+ | 8+ | BC 377 |
| BC 298 | P | TO-18 | 375 | 1 | 25 | 75 | 260# | 100 | 1 | 0.7 | 0.5 | 250+ | 8+ | BC 378 |
| BC 300 | N | TO-39 | 850 | 1 | 80 | 40 | 240# | 150 | 10 | 0.5 | 0.15 | 120+ | 10+ | - |
| BC 301 | N | TO-39 | 850 | 1 | 60 | 40 | 240# | 150 | 10 | 0.5 | 0.15 | 120+ | 10+ | BC 303 |
| BC 302 | N | TO-39 | 850 | 1 | 45 | 40 | 240# | 150 | 10 | 0.5 | 0.15 | 120+ | 10+ | BC 304 |
| BC 303 | P | TO-39 | 850 | 1 | 60 | 40 | 240# | 150 | 10 | 0.65 | 0.15 | 100+ | 17+ | BC 301 |
| BC 304 | P | TO-39 | 850 | 1 | 45 | 40 | 240# | 150 | 10 | 0.65 | 0.15 | 100+ | 17+ | BC 302 |
| BC 310 | N | TO-39 | 800 | 1 | 70 | 40 | - | 200 | 1 | 0.4 | 0.2 | 90+ | 12+ | BC 311 |
| BC 311 | P | TO-39 | 800 | 1 | 70 | 40 | - | 200 | 1 | 0.5 | 0.2 | 200+ | 13+ | BC 310 |
| BC 313 | P | TO-39 | 800 | 1 | 40 | 40 | 250# | 150 | 2 | 1 | 1 | 50 | 30 | BC 211 |
| BC 313A | P | TO-39 | 800 | 1 | 60 | 40 | 250# | 150 | 2 | 1 | 1 | 50 | 30 | BC 211A |
| BC 327 | P | TO-92F | 625 | 0.8 | 45 | 100 | 630# | 100 | 1 | 0.7 | 0.5 | 100+ | 14+ | BC 337 |
| BC 328 | P | TO-92F | 625 | 0.8 | 25 | 100 | 630# | 100 | 1 | 0.7 | 0.5 | 100+ | 14+ | BC 338 |
| BC 337 | N | TO-92F | 625 | 0.8 | 45 | 100 | 630# | 100 | 1 | 0.7 | 0.5 | 100+ | 10+ | BC 327 |
| BC 338 | N | TO-92F | 625 | 0.8 | 25 | 100 | 630# | 100 | 1 | 0.7 | 0.5 | 100+ | 10+ | BC 328 |
| BC 340 | N | TO-39 | 800 | 0.5 | 40 | 40 | 250# | 50 | 5 | 0.4 | 0.15 | 100+ | 6.5+ | BC 360 |
| BC 341 | N | TO-39 | 800 | 0.5 | 60 | 40 | 160# | 50 | 5 | 0.4 | 0.15 | 100+ | 6.5+ | BC 361 |
| BC 342 | N | TO-39 | 800 | 1 | 60 | 20 | - | 500 | 10 | 0.8 | 0.3 | 100+ | 20 | BC 343 |
| BC 343 | P | TO-39 | 800 | 1 | 60 | 20 | - | 500 | 10 | 0.8 | 0.3 | 100 | 20 | BC 342 |
| BC 344 | N | TO-39 | 800 | 1 | 80 | 20 | - | 150 | 10 | 0.8 | 0.15 | 100 | 20 | BC 345 |
| BC 345 | P | TO-39 | 800 | 1 | 80 | 20 | - | 150 | 10 | 0.8 | 0.15 | 100 | 20 | BC 344 |
| BC 360 | P | TO-39 | 800 | 0.5 | 40 | 40 | 250# | 50 | 5 | 0.4 | 0.15 | 250+ | 6.5+ | BC 340 |
| BC 361 | P | TO-39 | 800 | 0.5 | 60 | 40 | 160# | 50 | 5 | 0.4 | 0.15 | 250+ | 6.5+ | BC 341 |
| BC 368 | N | TO-92B | 800 | 1 | 20 | 85 | 375 | 500 | 1 | 0.5 | 1 | 65+ | - | BC 369 |
| BC 369 | P | TO-92B | 800 | 1 | 20 | 85 | 375 | 500 | 1 | 0.5 | 1 | 65+ | - | BC 368 |
| BC 377 | N | TO-18 | 375 | 1 | 45 | 75 | 500 | 100 | 1 | 0.7 | 0.5 | 100 | 12 | BC 297 |
| BC 378 | N | TO-18 | 375 | 1 | 25 | 75 | 500# | 100 | 1 | 0.7 | 0.5 | 100 | 12 | BC 298 |
| BC 381 | P | TO-92F | 625 | 0.2 | 25 | 60 | - | 2.5 | 5 | 0.25 | 0.05 | 100 | 10 | - |
| BC 387 | N | TO-92F | 310 | 0.6 | 30 | 40 | 300 | 100 | 1 | 0.5 | 0.1 | 200 | 10 | BC 388 |
| BC 388 | P | TO-92F | 310 | 0.6 | 30 | 40 | 300 | 100 | 1 | 0.5 | 0.1 | 200 | 10 | BC 387 |
| BC 431 | N | TO-92F | 625 | 0.8 | 60 | 63 | 240# | 100 | 1 | 0.7 | 0.5 | 100+ | 12+ | BC 432 |
| BC 432 | P | TO-92F | 625 | 0.8 | 60 | 63 | 240# | 100 | 1 | 0.7 | 0.5 | 100+ | 17+ | BC 431 |
| BC 440 | N | TO-39 | 1000 | 1 | 40 | 40 | 250# | 500 | 4 | 1 | 1 | 50 | 25 | BC 460 |

#HFE groupings available + Typical value

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | Cob max (pF) | COMPLEMENTARY TYPE |
|----------|----------|---------|---------------------|--------------------|----------------------|-----|------|---------------------|---------------------|----------|--------------------|--------------------------|--------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| BC 441 | N | TO-39 | 1000 | 1 | 60 | 40 | 250# | 500 | 4 | 1 | 1 | 50 | 25 | BC 461 |
| BC 445 | N | TO-92F | 625 | 0.3 | 60 | 50 | 460# | 2 | 5 | 0.25 | 0.1 | 100 | 3+ | BC 446 |
| BC 446 | P | TO-92F | 625 | 0.3 | 60 | 50 | 460# | 2 | 5 | 0.25 | 0.1 | 100 | 3+ | BC 445 |
| BC 460 | P | TO-39 | 1000 | 1 | 40 | 40 | 250# | 500 | 4 | 1 | 1 | 50 | 25 | BC 440 |
| BC 461 | P | TO-39 | 1000 | 1 | 60 | 40 | 250# | 500 | 4 | 1 | 1 | 50 | 25 | BC 441 |
| BC 485 | N | TO-92F | 625 | 1 | 45 | 60 | 400# | 100 | 2 | 0.5 | 0.5 | 200+ | 7+ | BC 486 |
| BC 486 | P | TO-92F | 625 | 1 | 45 | 60 | 400# | 100 | 2 | 0.5 | 0.5 | 150+ | 9+ | BC 485 |
| BC 487 | N | TO-92F | 625 | 1 | 60 | 60 | 400# | 100 | 2 | 0.5 | 0.5 | 200+ | 7+ | BC 488 |
| BC 488 | P | TO-92F | 625 | 1 | 60 | 60 | 400# | 100 | 2 | 0.5 | 0.5 | 150+ | 9+ | BC 487 |
| BC 489 | N | TO-92F | 625 | 1 | 80 | 60 | 400# | 100 | 2 | 0.5 | 0.5 | 200+ | 7+ | BC 490 |
| BC 490 | P | TO-92F | 625 | 1 | 80 | 60 | 400# | 100 | 2 | 0.5 | 0.5 | 150+ | 9+ | BC 489 |
| BC 512 | P | TO-92F | 300 | 0.2 | 45 | 60 | 300# | 2 | 5 | 0.6 | 0.1 | 200 | 5+ | - |
| BC 513 | P | TO-92F | 300 | 0.2 | 25 | 80 | 400# | 2 | 5 | 0.6 | 0.1 | 200 | 5+ | - |
| BC 514 | P | TO-92F | 300 | 0.2 | 20 | 140 | 400# | 2 | 5 | 0.6 | 0.1 | 200 | 5+ | - |
| BC 526 | P | TO-92A | 625 | 0.2 | 50 | 60 | 800# | 2 | 5 | 0.6 | 0.1 | 100 | 5 | - |
| BC 527 | P | TO-92A | 625 | 1 | 60 | 40 | 400# | 100 | 1 | 0.7 | 0.5 | 100 | 15 | BC 537 |
| BC 528 | P | TO-92A | 625 | 1 | 80 | 40 | 400# | 100 | 1 | 0.7 | 0.5 | 100 | 15 | BC 538 |
| BC 534 | P | TO-92A | 625 | 0.5 | 80 | 50 | - | 10 | 1 | 0.25 | 0.1 | 50 | 6.5 | BC 535 |
| BC 535 | N | TO-92A | 625 | 0.5 | 80 | 50 | - | 10 | 1 | 0.25 | 0.1 | 50 | 6 | BC 534 |
| BC 537 | N | TO-92A | 625 | 1 | 60 | 40 | 400# | 100 | 1 | 0.7 | 0.5 | 100 | 15 | BC 527 |
| BC 538 | N | TO-92A | 625 | 1 | 80 | 40 | 400# | 100 | 1 | 0.7 | 0.5 | 100 | 15 | BC 528 |
| BC 612 | P | TO-92F | 300 | 0.2 | 70 | 60 | 300 | 2 | 5 | 0.72 | 2 | 200 | 10 | BC 682 |
| BC 612L | P | TO-92B | 300 | 0.2 | 70 | 60 | 300 | 2 | 5 | 0.72 | 2 | 200 | 10 | BC 682L |
| BC 727 | P | TO-92A | 625 | 1.5 | 40 | 63 | 630# | 100 | 1 | 0.7 | 0.5 | 40 | 20 | BC 737 |
| BC 728 | P | TO-92A | 625 | 1.5 | 25 | 63 | 630# | 100 | 1 | 0.7 | 0.5 | 40 | 20 | BC 738 |
| BC 737 | N | TO-92A | 625 | 1.5 | 40 | 63 | 630# | 100 | 1 | 0.7 | 0.5 | 40 | 20 | BC 727 |
| BC 738 | N | TO-92A | 625 | 1.5 | 25 | 63 | 630# | 100 | 1 | 0.7 | 0.5 | 40 | 20 | BC 728 |
| BCW 34 | N | TO-18 | 360 | 0.6 | 45 | 100 | 350 | 10 | 5 | 0.1 | 0.01 | 150 | 6 | BCW 35 |
| BCW 35 | P | TO-18 | 360 | 0.6 | 45 | 100 | 350 | 10 | 5 | 0.1 | 0.01 | 150 | 6 | BCW 34 |
| BCW 36 | N | TO-92F | 360 | 0.6 | 45 | 100 | 350 | 10 | 5 | 0.1 | 0.01 | 150 | 6 | BCW 37 |
| BCW 37 | P | TO-92F | 360 | 0.6 | 45 | 100 | 350 | 10 | 5 | 0.1 | 0.01 | 150 | 6 | BCW 36 |
| BCW 73 | N | TO-18 | 450 | 0.8 | 32 | 100 | 630# | 100 | 1 | 0.7 | 0.5 | 100 | 12 | - |
| BCW 74 | N | TO-18 | 450 | 0.8 | 45 | 100 | 630# | 100 | 1 | 0.7 | 0.5 | 100 | 12 | - |
| BCW 75 | P | TO-18 | 450 | 0.8 | 32 | 63 | 400# | 100 | 1 | 0.7 | 0.5 | 100 | 18 | - |
| BCW 76 | P | TO-18 | 450 | 0.8 | 45 | 63 | 400# | 100 | 1 | 0.7 | 0.5 | 100 | 18 | - |
| BCW 77 | N | TO-39 | 870 | 0.8 | 32 | 100 | 630# | 100 | 1 | 0.7 | 0.5 | 100 | 12 | - |
| BCW 78 | N | TO-39 | 870 | 0.8 | 45 | 100 | 630# | 100 | 1 | 0.7 | 0.5 | 100 | 12 | - |
| BCW 79 | P | TO-39 | 870 | 0.8 | 32 | 63 | 400# | 100 | 1 | 0.7 | 0.5 | 100 | 18 | - |
| BCW 80 | P | TO-39 | 870 | 0.8 | 45 | 63 | 400# | 100 | 1 | 0.7 | 0.5 | 100 | 18 | - |
| BCW 90 | N | TO-92F | 610 | 0.8 | 40 | 100 | 400# | 150 | 2 | 0.25 | 0.15 | 100+ | 15 | BCW 92 |
| BCW 90K | N | TO-92F* | 750 | 0.8 | 40 | 100 | 400# | 150 | 2 | 0.25 | 0.15 | 100+ | 15 | BCW 92K |
| BCW 91 | N | TO-92F | 610 | 0.8 | 60 | 100 | 300# | 150 | 2 | 0.25 | 0.15 | 100+ | 15 | BCW 93 |
| BCW 91K | N | TO-92F* | 750 | 0.8 | 60 | 100 | 300# | 150 | 2 | 0.25 | 0.15 | 120+ | 15 | BCW 93K |
| BCW 92 | P | TO-92F | 610 | 0.8 | 60 | 100 | 300# | 150 | 2 | 0.25 | 0.15 | 135 | 15 | BCW 90 |
| BCW 92K | P | TO-92F* | 750 | 0.8 | 60 | 100 | 300# | 150 | 2 | 0.25 | 0.15 | 135 | 15 | BCW 90K |
| BCW 93 | P | TO-92F | 610 | 0.8 | 60 | 100 | 300# | 150 | 2 | 0.25 | 0.15 | 135 | 10+ | BCW 91 |
| BCW 93K | P | TO-92F* | 750 | 0.8 | 60 | 100 | 300# | 150 | 2 | 0.25 | 0.15 | 135 | 10+ | BCW 91K |
| BCW 94 | N | TO-92F | 540 | 0.4 | 40 | 100 | 400# | 50 | 2 | 0.25 | 0.05 | 70+ | 8 | BCW 96 |
| BCW 94K | N | TO-92F* | 700 | 0.4 | 40 | 100 | 400# | 50 | 2 | 0.25 | 0.05 | 70+ | 8 | BCW 96K |
| BCW 95 | N | TO-92F | 540 | 0.4 | 60 | 100 | 300# | 50 | 2 | 0.25 | 0.05 | 70+ | 8 | BCW 97 |
| BCW 95K | N | TO-92F* | 700 | 0.4 | 60 | 100 | 300# | 50 | 2 | 0.25 | 0.05 | 70+ | 8 | BCW 97K |
| BCW 96 | P | TO-92F | 540 | 0.4 | 40 | 100 | 300# | 50 | 2 | 0.25 | 0.05 | 135 | 10 | BCW 94 |

* With X-67 heat sink # HFE groupings available + Typical value

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | Cob max (pF) | COMPLEMENTARY TYPE |
|----------|----------|---------|---------------------|--------------------|----------------------|-----|------|---------------------|---------|----------|--------------------|--------------------------|--------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | VCE (V) | max (V) | I _C (A) | | | |
| BCW 96K | P | TO-92F* | 700 | 0.4 | 40 | 100 | 300# | 50 | 2 | 0.25 | 0.05 | 135 | 10 | BCW 94K |
| BCW 97 | P | TO-92F | 540 | 0.4 | 40 | 100 | 300# | 50 | 2 | 0.25 | 0.05 | 135 | 10 | BCW 95 |
| BCW 97K | P | TO-92F* | 540 | 0.4 | 60 | 100 | 300# | 50 | 2 | 0.25 | 0.05 | 135 | 10 | BCW 95K |
| BCX 25 | N | TO-92F | 350 | 0.2 | 60 | 70 | 400 | 10 | 5 | 0.25 | 0.1 | 100 | 6 | BCX 26 |
| BCX 26 | P | TO-92F | 350 | 0.2 | 60 | 70 | 400 | 10 | 5 | 0.25 | 0.1 | 100 | 6 | BCX 25 |
| BCX 40 | N | TO-39 | 1000 | 2 | 80 | 40 | 250 | 500 | 4 | 1 | 0.5 | 50 | — | — |
| BCX 45 | N | TO-92F | 625 | 1 | 45 | 50 | — | 100 | 2 | 0.5 | 0.5 | 100 | 12 | — |
| BCX 46 | P | TO-92F | 625 | 1 | 45 | 50 | — | 100 | 2 | 0.5 | 0.5 | 60 | 15 | — |
| BCX 47 | N | TO-92F | 625 | 1 | 60 | 50 | — | 100 | 2 | 0.5 | 0.5 | 100 | 12 | — |
| BCX 48 | P | TO-92F | 625 | 1 | 60 | 50 | — | 100 | 2 | 0.5 | 0.5 | 60 | 15 | — |
| BCX 49 | N | TO-92F | 625 | 1 | 80 | 50 | — | 100 | 2 | 0.5 | 0.5 | 100 | 12 | — |
| BCX 50 | P | TO-92F | 625 | 1 | 80 | 50 | — | 100 | 2 | 0.5 | 0.5 | 60 | 15 | — |
| BCX 60 | N | TO-39 | 1000 | 2 | 80 | 40 | 250 | 500 | 4 | 1 | 0.5 | 50 | — | — |
| BCX 73 | N | TO-92F | 625 | 0.8 | 32 | 100 | 630# | 100 | 1 | 1.4 | 0.5 | 100 | 12 | — |
| BCX 74 | N | TO-92F | 625 | 0.8 | 45 | 100 | 630# | 100 | 1 | 1.4 | 0.5 | 100 | 12 | — |
| BCX 75 | P | TO-92F | 625 | 0.8 | 32 | 100 | 630# | 100 | 1 | 1.4 | 0.5 | 100 | 18 | — |
| BCX 76 | P | TO-92F | 625 | 0.8 | 45 | 100 | 630# | 100 | 1 | 1.4 | 0.5 | 100 | 18 | — |
| BD 370A | P | TO-237A | 750 | 1.5 | 45 | 40 | 400# | 100 | 1 | 0.7 | 1 | 50 | 30 | BD 371A |
| BD 370B | P | TO-237A | 750 | 1.5 | 60 | 40 | 400# | 100 | 1 | 0.7 | 1 | 50 | 30 | BD 371B |
| BD 370C | P | TO-237A | 750 | 1.5 | 80 | 40 | 400# | 100 | 1 | 0.7 | 1 | 50 | 30 | BD 371C |
| BD 371A | N | TO-237A | 750 | 1.5 | 45 | 40 | 400# | 100 | 1 | 0.7 | 1 | 50 | 30 | BD 370A |
| BD 371B | N | TO-237A | 750 | 1.5 | 60 | 40 | 400# | 100 | 1 | 0.7 | 1 | 50 | 30 | BD 370B |
| BD 371C | N | TO-237A | 750 | 1.5 | 80 | 40 | 400# | 100 | 1 | 0.7 | 1 | 50 | 30 | BD 370C |
| BFR 10 | N | TO-39 | 800 | — | 40 | 60 | 120 | 150 | 10 | 0.22 | 0.15 | 250 | 8 | — |
| BFR 11 | N | TO-18 | 400 | — | 40 | 60 | 120 | 150 | 10 | 0.22 | 0.15 | 250 | 8 | — |
| BFR 18 | N | TO-18 | 500 | 0.5 | 55 | 60 | 180 | 150 | 1 | 0.25 | 0.15 | 60 | 20 | — |
| BFR 19 | N | TO-39 | 800 | 1 | 35 | 40 | 120 | 150 | 1 | 0.25 | 0.15 | 60 | 20 | — |
| BFR 20 | N | TO-39 | 800 | 1 | 35 | 90 | 450 | 150 | 1 | 0.25 | 0.15 | 60 | 20 | — |
| BFR 21 | N | TO-39 | 800 | 1 | 70 | 40 | — | 150 | 1 | 0.25 | 0.15 | 60 | 20 | — |
| BFR 22 | N | TO-39 | 5000▲ | 1 | 65 | 40 | 120 | 150 | 10 | 0.15 | 0.15 | — | 15 | — |
| BFR 23 | P | TO-39 | 7000▲ | 1 | 65 | 40 | 140 | 150 | 10 | 0.65 | 0.15 | — | 30 | — |
| BFR 24 | P | TO-39 | 7000▲ | 1 | 40 | 50 | 250 | 150 | 10 | 1.4 | 0.15 | — | 30 | — |
| BFR 77 | N | TO-39 | 600 | 1 | 80 | 40 | 120 | 150 | 10 | 0.5 | 0.15 | 50 | 15 | — |
| BFS 92 | P | TO-39 | 300 | 0.2 | 60 | 30 | — | 150 | 10 | 0.25 | 0.01 | 40 | 20 | — |
| BFS 93 | P | TO-39 | 800 | 1 | 60 | 70 | — | 150 | 10 | 0.35 | 0.15 | 40 | 20 | — |
| BFS 94 | P | TO-39 | 800 | 1 | 40 | 40 | — | 150 | 10 | 0.2 | 0.15 | 40 | 20 | — |
| BFS 95 | P | TO-39 | 800 | 1 | 35 | 70 | — | 150 | 10 | 0.2 | 0.15 | 40 | 20 | — |
| BFT 29 | N | TO-18 | 360 | 1 | 80 | 50 | 250 | 100 | 10 | 0.95 | 0.5 | 100 | 10 | — |
| BFT 30 | N | TO-18 | 360 | 1 | 60 | 75 | 250 | 100 | 10 | 0.75 | 0.5 | 100 | 10 | — |
| BFT 31 | N | TO-18 | 360 | 1 | 50 | 100 | 300 | 100 | 10 | 0.75 | 0.5 | 100 | 10 | — |
| BFT 39 | N | TO-39 | 800 | 1 | 80 | 50 | 250 | 100 | 10 | 1.6 | 1 | 100 | 10 | BFT 79 |
| BFT 40 | N | TO-39 | 800 | 1 | 60 | 75 | 250 | 100 | 10 | 1.0 | 1 | 100 | 10 | BFT 80 |
| BFT 41 | N | TO-39 | 800 | 1 | 50 | 100 | 300 | 100 | 10 | 1.0 | 1 | 100 | 10 | BFT 81 |
| BFW 24 | N | TO-39 | 800 | 1 | 60 | 40 | 120 | 150 | 1 | 1.0 | 1 | 60 | 25 | — |
| BFW 25 | N | TO-39 | 800 | 1 | 40 | 100 | 300 | 150 | 1 | 1.0 | 1 | 70 | 25 | — |
| BFW 26 | N | TO-39 | 800 | 1 | 40 | 40 | 120 | 150 | 1 | 1.0 | 1 | 60 | 25 | — |
| BFW 29 | N | TO-39 | 600 | 0.4 | 30 | 45 | — | 6 | 15 | 0.5 | 0.15 | 40 | 25 | — |
| BFW 31 | P | TO-18 | 500 | 0.7 | 30 | 70 | — | 100 | 10 | 0.4 | 0.1 | — | 12 | — |
| BFW 32 | N | TO-18 | 500 | 0.7 | 30 | 70 | — | 100 | 10 | 0.4 | 0.1 | — | 12 | — |
| BFW 33 | N | TO-39 | 800 | — | 80 | 40 | 120 | 150 | 10 | 5 | 0.15 | 50 | 15 | — |
| BFW 34 | N | TO-39 | 600 | 0.2 | 30 | 45 | — | 6 | 15 | 0.5 | 0.05 | 70 | 10 | — |
| BFW 35 | N | TO-39 | 600 | 0.2 | 30 | 80 | 150 | 6 | 15 | 0.5 | 0.05 | 70 | 10 | — |
| BFW 80 | N | TO-39 | 600 | 0.2 | 30 | 90 | — | 6 | 15 | 0.5 | 0.05 | 70 | 10 | — |

* With x-67 heat sink # HFE groupings available ▲ T_c = 25°C

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | C _{ob} max (pF) | COMPLEMENTARY TYPE |
|----------|----------|---------|---------------------|--------------------|----------------------|-----|------|---------------------|---------------------|----------|--------------------|--------------------------|--------------------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| BFX 29 | P | TO-39 | 600 | 0.6 | 60 | 50 | 125 | 10 | 10 | 0.4 | 0.15 | 100 | 12 | - |
| BFX 30 | P | TO-39 | 600 | 0.6 | 65 | 50 | 200 | 10 | 0.4 | - | - | 100 | 12 | - |
| BFX 35 | P | TO-18 | 360 | - | 40 | 80 | - | 10 | 10 | 0.3 | 0.05 | 200 | 10 | - |
| BFX 38 | P | TO-39 | 800 | 1 | 55 | 85 | - | 100 | 5 | 0.5 | 0.5 | 100 | 20 | - |
| BFX 39 | P | TO-39 | 800 | 1 | 55 | 40 | - | 100 | 5 | 0.5 | 0.5 | 100 | 20 | - |
| BFX 40 | P | TO-39 | 800 | 1 | 75 | 40 | - | 100 | 5 | 0.5 | 0.5 | 100 | 20 | - |
| BFX 41 | P | TO-39 | 800 | 1 | 75 | 85 | - | 100 | 5 | 0.5 | 0.5 | 100 | 20 | - |
| BFX 68 | N | TO-39 | 700 | - | 30 | 100 | 300 | 150 | 10 | 1.5 | 0.15 | 70 | 25 | - |
| BFX 69 | N | TO-39 | 800 | - | 30 | 40 | 120 | 150 | 10 | 1.5 | 0.15 | 60 | 25 | - |
| BFX 69A | N | TO-39 | 800 | - | 40 | 40 | - | 150 | 10 | 1.2 | 0.5 | 60 | 20 | - |
| BFX 74 | P | TO-39 | 600 | - | 35 | 30 | 90 | 150 | 10 | 1.5 | 0.15 | 60 | 45 | - |
| BFX 74A | P | TO-39 | 800 | - | 60 | 30 | - | 150 | 10 | 0.3 | 0.15 | 100 | 20 | - |
| BFX 84 | N | TO-39 | 800 | 1 | 60 | 30 | - | 150 | 10 | 0.35 | 0.15 | 50 | 12 | - |
| BFX 85 | N | TO-39 | 800 | 1 | 60 | 70 | - | 150 | 10 | 0.35 | 0.15 | 50 | 12 | - |
| BFX 86 | N | TO-39 | 800 | 1 | 35 | 70 | - | 150 | 10 | 0.35 | 0.15 | 50 | 12 | - |
| BFX 87 | P | TO-39 | 600 | 0.6 | 50 | 40 | - | 150 | 10 | 0.4 | 0.15 | 100 | 12 | - |
| BFX 88 | P | TO-39 | 600 | 0.6 | 40 | 40 | - | 150 | 10 | 0.4 | 0.15 | 100 | 12 | - |
| BFX 94 | N | TO-18 | 500 | 0.8 | 30 | 40 | 120 | 150 | 10 | 1.6 | 0.5 | 250 | 8 | - |
| BFX 94A | N | TO-18 | 400 | 0.8 | 30 | 35 | - | 10 | 10 | 0.22 | 0.15 | 250 | 8 | - |
| BFX 95 | N | TO-18 | 500 | 0.8 | 30 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 250 | 8 | - |
| BFX 95A | N | TO-18 | 400 | 0.8 | 30 | 100 | 300 | 150 | 10 | 0.22 | 0.15 | 250 | 8 | - |
| BFX 96 | N | TO-39 | 500 | 0.8 | 30 | 40 | 120 | 150 | 10 | 1.6 | 0.5 | 250 | 8 | - |
| BFX 96A | N | TO-39 | 800 | 0.8 | 30 | 40 | 120 | 150 | 10 | 0.22 | 0.15 | 250 | 8 | - |
| BFX 97 | N | TO-39 | 500 | 0.8 | 30 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 250 | 8 | - |
| BFX 97A | N | TO-39 | 800 | 0.8 | 30 | 100 | 300 | 150 | 10 | 0.22 | 0.15 | 250 | 8 | - |
| BFY 33 | N | TO-39 | 800 | 0.5 | 24 | 40 | - | 150 | 10 | 1.5 | 0.15 | 40 | 20 | - |
| BFY 34 | N | TO-39 | 800 | 0.5 | 30 | 40 | 120 | 150 | 10 | 1.5 | 0.15 | 60 | 25 | - |
| BFY 40 | N | TO-39 | 800 | 0.8 | 30 | 40 | - | 10 | 10 | 1.85 | 0.15 | - | 20 | - |
| BFY 41 | N | TO-39 | 800 | 0.6 | 60 | 35 | - | 50 | 10 | 5 | 0.05 | - | - | - |
| BFY 46 | N | TO-39 | 2600Δ | 0.5 | 30 | 100 | 300 | 150 | 10 | 1.5 | 0.15 | - | - | - |
| BFY 50 | N | TO-39 | 800 | 1 | 35 | 30 | 112+ | 150 | 10 | 0.2 | 0.15 | 60 | 12 | - |
| BFY 51 | N | TO-39 | 800 | 1 | 30 | 40 | - | 150 | 10 | 0.35 | 0.15 | 50 | 12 | - |
| BFY 52 | N | TO-39 | 800 | 1 | 20 | 60 | - | 150 | 10 | 0.35 | 0.15 | 50 | 12 | - |
| BFY 53 | N | TO-39 | 800 | 1 | 20 | 30 | - | 150 | 10 | 0.35 | 0.15 | 50 | - | - |
| BFY 55 | N | TO-39 | 800 | 1 | 35 | 40 | - | 150 | 6 | 0.2 | 0.15 | 60 | - | - |
| BFY 56 | N | TO-39 | 800 | 1 | 45 | 30 | 150 | 150 | 1 | 1.2 | 1 | 40 | 25 | - |
| BFY 56A | N | TO-39 | 800 | 1 | 55 | 40 | 120 | 150 | 1 | 1.2 | 1 | 60 | 25 | - |
| BFY 64 | P | TO-39 | 700 | - | 40 | 80 | - | 10 | 10 | 1.8 | 0.5 | 200 | 10 | - |
| BFY 67 | N | TO-39 | 800 | 0.5 | 30 | 40 | 120 | 150 | 10 | 1.5 | 0.15 | 60 | 25 | - |
| BFY 68 | N | TO-39 | 800 | 0.5 | 30 | 100 | 300 | 150 | 10 | 1.5 | 0.15 | 70 | 25 | - |
| BFY 72 | N | TO-39 | 800 | - | 28 | 40 | 150 | 150 | 10 | 0.7 | 0.5 | 250 | 8 | - |
| BFY 94 | P | TO-39 | 3000Δ | - | 40 | 40 | - | 0.1 | 10 | 0.4 | 0.05 | 100 | 20 | - |
| BSV 15 | P | TO-39 | 5000Δ | 1 | 40 | 40 | 250# | 100 | 1 | 1 | 0.5 | 50 | 30 | - |
| BSV 16 | P | TO-39 | 5000Δ | 1 | 60 | 40 | 250# | 100 | 1 | 1 | 0.5 | 50 | 30 | - |
| BSV 17 | P | TO-39 | 5000Δ | 1 | 80 | 40 | 160# | 100 | 1 | 1 | 0.5 | 50 | 25 | - |
| C 055 | P | TO-92A | 800* | 1.5 | 20 | 50 | 360# | 100 | 1 | 0.4 | 0.5 | 120+ | - | C 066 |
| C 055P | P | TO-237A | 750 | 1.5 | 20 | 50 | 360# | 100 | 1 | 0.4 | 0.5 | 120+ | - | C 066P |
| C 066 | N | TO-92A | 800* | 1.5 | 20 | 50 | 360# | 100 | 1 | 0.4 | 0.5 | 120+ | - | C 055 |
| C 066P | N | TO-237A | 750 | 1.5 | 20 | 50 | 360# | 100 | 1 | 0.4 | 0.5 | 120+ | - | C 055P |
| C 155 | P | TO-92A | 800* | 2 | 25 | 50 | 360# | 100 | 1 | 0.45 | 1 | 120+ | - | C 166 |
| C 155P | P | TO-237A | 750 | 2 | 25 | 50 | 360# | 100 | 1 | 0.45 | 1 | 120+ | - | C 166P |
| C 166 | N | TO-92A | 800* | 2 | 25 | 50 | 360# | 100 | 1 | 0.45 | 1 | 120+ | - | C 155 |
| C 166P | N | TO-237A | 750 | 2 | 25 | 50 | 360# | 100 | 1 | 0.45 | 1 | 120+ | - | C 155P |
| C 168 | N | TO-92B | 625 | 3 | 7 | 300 | - | 10 | 1 | 0.6 | 2 | 120+ | 40+ | - |

▲ T_C = 25°C * With x-67 heat sink # HFE groupings available + Typical value

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | Cob max (pF) | COMPLEMENTARY TYPE |
|-----------|----------|---------|---------------------|--------------------|----------------------|-----|------|---------------------|---------------------|----------|--------------------|--------------------------|--------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| C 169 | N | TO-92B | 625 | 3 | 9 | 180 | 360 | 100 | 1 | 0.4 | 1 | 100+ | 40+ | - |
| C 266 | N | TO-92A | 625 | 2 | 60 | 45 | - | 100 | 10 | 0.5 | 0.5 | - | - | - |
| C 266P | N | TO-237A | 750 | 2 | 60 | 25 | - | 1 | 10 | 0.5 | 0.5 | - | - | - |
| C 855 | P | TO-92A | 625* | 1.5 | 60 | 50 | 240# | 100 | 2 | 0.5 | 0.5 | 50 | 25 | C 866 |
| C 866 | N | TO-92A | 625* | 1.5 | 60 | 50 | 240# | 100 | 2 | 0.5 | 0.5 | 50 | 25 | C 855 |
| CS 9012 | P | TO-92A | 625 | - | 25/12 | 64 | 202# | 50 | 1 | 1 | 0.25 | - | - | - |
| CS 9013 | N | TO-92A | 625 | - | 25/12 | 64 | 202# | 50 | 1 | 1 | 0.25 | - | - | - |
| CX 906 | N | TO-92A | 500 | 0.5 | 40 | 50 | 360# | 50 | 1 | 0.5 | 0.25 | 80 | 8 | CX 956 |
| CX 908 | N | TO-92A | 625* | 1 | 40 | 80 | 360# | 100 | 1 | 0.5 | 0.5 | 60 | 18 | CX 958 |
| CX 956 | P | TO-92A | 500 | 0.5 | 40 | 50 | 360# | 50 | 1 | 0.5 | 0.25 | 80 | 8 | CX 906 |
| CX 958 | P | TO-92A | 625* | 1 | 40 | 80 | 360# | 100 | 1 | 0.5 | 0.5 | 60 | 18 | CX 908 |
| KM 904 | N | TO-92A | 500 | 0.5 | 20 | 64 | 246# | 50 | 1 | 0.6 | 0.15 | 200+ | 4.8+ | KM 905 |
| KM 905 | P | TO-92A | 500 | 0.5 | 20 | 64 | 246# | 50 | 1 | 0.6 | 0.15 | 120+ | 9+ | KM 904 |
| KM 934 | N | TO-92A | 500 | 0.5 | 30 | 80 | 360# | 50 | 1 | 0.6 | 0.15 | 180+ | 4+ | KM 935 |
| KM 935 | P | TO-92A | 500 | 0.5 | 30 | 80 | 360# | 50 | 1 | 0.6 | 0.15 | 180+ | 5+ | KM 934 |
| MA 8001 | N | TO-39 | 800 | 0.5 | 30 | 30 | - | 150 | 10 | 0.5 | 0.15 | 100 | 12 | - |
| MA 8002 | N | TO-39 | 800 | 0.5 | 80 | 40 | 200 | 150 | 10 | 0.3 | 0.15 | 100 | 10 | - |
| MA 8003 | N | TO-39 | 800 | 0.5 | 60 | 100 | 350 | 150 | 10 | 0.3 | 0.15 | 100 | 10 | - |
| MPS 3702 | P | TO-92A | 360 | 0.2 | 25 | 60 | 300 | 50 | 5 | 0.25 | 0.05 | 100 | 12 | MPS 3704 |
| MPS 3703 | P | TO-92A | 360 | 0.2 | 30 | 50 | 150 | 50 | 5 | 0.25 | 0.05 | 100 | 12 | MPS 3706 |
| MPS 3704 | N | TO-92A | 360 | 0.8 | 30 | 100 | 300 | 50 | 2 | 0.6 | 0.1 | 100 | 12 | MPS 3702 |
| MPS 3705 | N | TO-92A | 360 | 0.8 | 30 | 50 | 150 | 50 | 2 | 0.8 | 0.1 | 100 | 12 | MPS 3702 |
| MPS 3706 | N | TO-92A | 360 | 0.8 | 20 | 30 | 600 | 50 | 2 | 1 | 0.1 | 100 | 12 | MPS 3703 |
| MPS 4354 | P | TO-92A | 625 | 1 | 60 | 50 | 500 | 10 | 10 | 0.5 | 0.5 | 100 | 30 | PN 3567 |
| MPS 4355 | P | TO-92A | 625 | 1 | 60 | 100 | 400 | 10 | 10 | 0.5 | 0.5 | 100 | 30 | PN 3569 |
| MPS 4356 | P | TO-92A | 625 | 1 | 80 | 50 | 250 | 10 | 10 | 0.5 | 0.5 | 100 | 30 | PN 3568 |
| MPS 6530 | N | TO-92A | 500 | 0.6 | 40 | 40 | 120 | 100 | 1 | 0.5 | 0.1 | 250+ | 5 | MPS 6533 |
| MPS 6531 | N | TO-92A | 500 | 0.6 | 40 | 90 | 270 | 100 | 1 | 0.3 | 0.1 | 250+ | 5 | MPS 6534 |
| MPS 6532 | N | TO-92A | 500 | 0.6 | 30 | 30 | - | 100 | 1 | 0.5 | 0.1 | 250+ | 5 | MPS 6535 |
| MPS 6533 | P | TO-92A | 500 | 0.6 | 40 | 40 | 120 | 100 | 1 | 0.5 | 0.1 | 250+ | 6 | MPS 6530 |
| MPS 6534 | P | TO-92A | 500 | 0.6 | 40 | 90 | 270 | 100 | 1 | 0.3 | 0.1 | 250+ | 6 | MPS 6531 |
| MPS 6535 | P | TO-92A | 500 | 0.6 | 30 | 30 | - | 100 | 1 | 0.5 | 0.1 | 250+ | 6 | MPS 6532 |
| MPS 6560 | N | TO-92A | 625 | 0.6 | 25 | 50 | 200 | 500 | 1 | 0.5 | 0.5 | 60 | 30 | MPS 6562 |
| MPS 6561 | N | TO-92A | 625 | 0.6 | 20 | 50 | 200 | 350 | 1 | 0.5 | 0.35 | 60 | 30 | MPS 6563 |
| MPS 6562 | P | TO-92A | 625 | 0.6 | 25 | 50 | 200 | 500 | 1 | 0.5 | 0.5 | 60 | 30 | MPS 6560 |
| MPS 6563 | P | TO-92A | 625 | 0.6 | 20 | 50 | 200 | 350 | 1 | 0.5 | 0.35 | 60 | 30 | MPS 6561 |
| MPS 6591 | N | TO-92A | 625 | 0.25 | 50 | 40 | - | 10 | 10 | 0.6 | 0.01 | 60 | 12 | - |
| MPS 8000 | N | TO-92A | 625 | 0.5 | 60 | 30 | - | 100 | 2 | 0.3 | 0.1 | - | - | - |
| MPS 9416 | N | TO-92A | 625 | 0.6 | 18 | 50 | 300# | 350 | 1 | 0.55 | 0.5 | - | - | MPS 9466 |
| MPS 9416A | N | TO-92A | 625 | 1 | 18 | 50 | 300# | 350 | 1 | 0.55 | 0.5 | 300+ | 5.5+ | MPS 9466A |
| MPS 9417 | N | TO-92A | 625 | 0.6 | 25 | 50 | 300# | 350 | 1 | 0.55 | 0.5 | - | - | MPS 9467 |
| MPS 9417A | N | TO-92A | 625 | 1 | 25 | 50 | 300# | 350 | 1 | 0.55 | 0.5 | 300+ | 5.5+ | MPS 9467A |
| MPS 9418 | N | TO-92A | 625 | 1.5 | 25 | 80 | 350# | 350 | 4 | 0.6 | 1 | 300+ | 6+ | MPS 9468 |
| MPS 9466 | P | TO-92A | 625 | 0.6 | 18 | 50 | 300# | 350 | 1 | 0.55 | 0.5 | - | - | MPS 9416 |
| MPS 9466A | P | TO-92A | 625 | 1 | 18 | 50 | 300# | 350 | 1 | 0.55 | 0.5 | 300+ | 12+ | MPS 9416A |
| MPS 9467 | P | TO-92A | 625 | 0.6 | 25 | 50 | 300# | 350 | 1 | 0.55 | 0.5 | 300+ | - | MPS 9417 |
| MPS 9468 | P | TO-92A | 625 | 1.5 | 25 | 80 | 350# | 350 | 4 | 0.6 | 1 | 200+ | 18+ | MPS 9418 |
| MPS 9467A | P | TO-92A | 625 | 1 | 25 | 50 | 300# | 350 | 1 | 0.55 | 0.5 | 300+ | 12+ | MPS 9417A |
| MPSA 05 | N | TO-92A | 625 | 0.5 | 60 | 50 | - | 100 | 1 | 0.25 | 0.1 | 50 | 20 | MPSA 55 |
| MPSA 06 | N | TO-92A | 625 | 0.5 | 80 | 50 | - | 100 | 1 | 0.25 | 0.1 | 50 | 20 | MPSA 56 |
| MPSA 55 | P | TO-92A | 625 | 0.5 | 60 | 50 | - | 100 | 1 | 0.25 | 0.1 | 100 | 20 | MPSA 05 |
| MPSA 56 | P | TO-92A | 625 | 0.5 | 80 | 50 | - | 100 | 1 | 0.25 | 0.1 | 100 | 20 | MPSA 06 |
| MPSD 05 | N | TO-92A | 350 | 0.5 | 25 | 50 | - | 50 | 5 | 0.5 | 0.1 | 100 | - | MPSD 55 |
| MPSD 55 | P | TO-92A | 350 | 0.5 | 25 | 50 | - | 50 | 5 | 0.5 | 0.1 | 100 | - | MPSD 05 |

* With x-67 heat sink = 800 mW # HFE groupings available + Typical value

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | Cob max (pF) | COMPLEMENTARY TYPE |
|----------|----------|--------|-----------------|--------|----------|-----|------|---------|---------|----------|--------|--------------------------|--------------|--------------------|
| | | | Pd (mW) | Ic (A) | VCEO (V) | min | max | Ic (mA) | VCE (V) | max (V) | Ic (A) | | | |
| MSB 492 | P | TO-92A | 625* | 2 | 25* | 80 | 360# | 200 | 1 | 0.5 | 1 | 100+ | 28+ | - |
| PN 2221 | N | TO-92A | 500 | 0.8 | 30 | 40 | 120 | 150 | 10 | 1.6 | 0.5 | 250 | 8 | PN 2906 |
| PN 2221A | N | TO-92A | 500 | 0.8 | 40 | 40 | 120 | 150 | 10 | 1 | 0.5 | 250 | 8 | PN 2906A |
| PN 2222 | N | TO-92A | 500 | 0.8 | 30 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 250 | 8 | PN 2907 |
| PN 2222A | N | TO-92A | 500 | 0.8 | 40 | 100 | 300 | 150 | 10 | 1 | 0.5 | 300 | 8 | PN 2907A |
| PN 2906 | P | TO-92A | 400 | 0.6 | 40 | 40 | 120 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | PN 2221 |
| PN 2906A | P | TO-92A | 400 | 0.6 | 60 | 40 | 120 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | PN 2221A |
| PN 2907 | P | TO-92A | 400 | 0.6 | 40 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | PN 2222 |
| PN 2907A | P | TO-92A | 400 | 0.6 | 60 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | PN 2222A |
| PN 3567 | N | TO-92A | 625 | 1 | 40 | 40 | 120 | 150 | 1 | 0.25 | 0.15 | 60 | 20 | MPS 4354 |
| PN 3568 | N | TO-92A | 625 | 1 | 60 | 40 | 120 | 150 | 1 | 0.25 | 0.15 | 60 | 20 | MPS 4356 |
| PN 3569 | N | TO-92A | 625 | 1 | 40 | 100 | 300 | 150 | 1 | 0.25 | 0.15 | 60 | 20 | MPS 4355 |
| 2N 656 | N | TO-39 | 800 | 0.6 | 60 | 30 | 90 | 200 | 10 | 4 | 0.2 | 40 | 20 | - |
| 2N 697 | N | TO-39 | 600 | 0.5 | 40* | 40 | 120 | 150 | 10 | 1.5 | 0.15 | 50 | 35 | - |
| 2N 699 | N | TO-39 | 600 | 1 | 80* | 40 | 120 | 150 | 10 | 5 | 0.15 | 50 | 20 | - |
| 2N 699A | N | TO-39 | 800 | 1 | 80* | 40 | 120 | 150 | 10 | 5 | 0.15 | 50 | 20 | - |
| 2N 699B | N | TO-39 | 870 | 1 | 80* | 40 | 120 | 150 | 10 | 5 | 0.15 | 60 | 15 | - |
| 2N 1132 | P | TO-39 | 600 | 0.6 | 35 | 30 | 90 | 150 | 10 | 1.5 | 0.15 | 60 | 45 | - |
| 2N 1420 | N | TO-39 | 600 | 1 | 30* | 100 | 300 | 150 | 10 | 1.5 | 0.15 | 50 | 35 | - |
| 2N 1507 | N | TO-39 | 600 | 1 | 30* | 100 | 300 | 150 | 10 | 1.5 | 0.15 | 50 | 35 | - |
| 2N 1566 | N | TO-39 | 600 | 0.1 | 60 | 80 | 200 | 5 | 5 | 1 | 0.01 | 60 | 10 | - |
| 2N 1613 | N | TO-39 | 800 | 0.5 | 50* | 40 | 120 | 150 | 10 | 1.5 | 0.15 | 60 | 25 | - |
| 2N 1613A | N | TO-39 | 1000 | 0.5 | 50* | 40 | 120 | 150 | 10 | 1 | 0.15 | 60 | 25 | - |
| 2N 1613B | N | TO-39 | 1000 | 0.5 | 55* | 40 | 120 | 150 | 10 | 0.2 | 0.15 | 60 | 10 | - |
| 2N 1711 | N | TO-39 | 800 | 1 | 50* | 100 | 300 | 150 | 10 | 1.5 | 0.15 | 70 | 25 | - |
| 2N 1711A | N | TO-39 | 1000 | 1 | 50* | 100 | 300 | 150 | 10 | 1 | 0.15 | 70 | 25 | - |
| 2N 1711B | N | TO-39 | 1000 | 1 | 55* | 100 | 300 | 150 | 10 | 0.2 | 0.15 | 70 | 10 | - |
| 2N 1889 | N | TO-39 | 800 | 1 | 60 | 40 | 120 | 150 | 10 | 5 | 0.15 | 50 | 15 | - |
| 2N 1890 | N | TO-39 | 800 | 1 | 60 | 100 | 300 | 150 | 10 | 5 | 0.15 | 60 | 15 | - |
| 2N 1893 | N | TO-39 | 800 | 0.5 | 80 | 40 | 120 | 150 | 10 | 5 | 0.15 | 50 | 15 | - |
| 2N 1973 | N | TO-39 | 800 | 1 | 80* | 75 | - | 10 | 10 | 1.2 | 0.05 | 60 | 15 | - |
| 2N 1974 | N | TO-39 | 800 | 1 | 80* | 35 | - | 10 | 10 | 1.2 | 0.05 | 50 | 15 | - |
| 2N 1975 | N | TO-39 | 800 | 1 | 80* | 15 | - | 10 | 10 | 1.2 | 0.05 | 40 | 15 | - |
| 2N 1983 | N | TO-39 | 600 | 1 | 25 | 80 | 240 | 5 | 5 | 0.25 | 0.005 | 40 | 45 | - |
| 2N 1984 | N | TO-39 | 600 | 1 | 25 | 40 | 120 | 5 | 5 | 0.25 | 0.005 | 40 | 45 | - |
| 2N 1985 | N | TO-39 | 600 | 1 | 25 | 20 | 80 | 5 | 5 | - | - | 40 | 45 | - |
| 2N 1986 | N | TO-39 | 600 | 0.3 | 25 | 60 | 240 | 150 | 10 | 1.5 | 0.15 | 40 | 35 | - |
| 2N 1987 | N | TO-39 | 600 | 0.3 | 25 | 20 | 80 | 150 | 10 | 1.5 | 0.15 | 40 | 35 | - |
| 2N 1988 | N | TO-39 | 600 | 1 | 45 | 35 | 120 | 30 | 10 | 2 | 0.03 | 40 | 20 | - |
| 2N 1989 | N | TO-39 | 600 | 1 | 45 | 20 | 60 | 30 | 10 | 2 | 0.03 | 40 | 20 | - |
| 2N 2017 | N | TO-39 | 1000 | 1 | 60 | 50 | 200 | 200 | 10 | 2 | 0.2 | - | - | - |
| 2N 2049 | N | TO-39 | 800 | 0.5 | 50 | 100 | 300 | 150 | 10 | 0.4 | 0.01 | 50 | 25 | - |
| 2N 2102 | N | TO-39 | 1000 | 1 | 65 | 40 | 120 | 150 | 10 | 0.5 | 0.15 | 60 | 10 | 2N 4036 |
| 2N 2192 | N | TO-39 | 800 | 1 | 40 | 100 | 300 | 150 | 10 | 0.35 | 0.15 | 50 | 20 | - |
| 2N 2192A | N | TO-39 | 800 | 1 | 40 | 100 | 300 | 150 | 10 | 0.25 | 0.15 | 50 | 20 | - |
| 2N 2192B | N | TO-39 | 800 | 1 | 40 | 100 | 300 | 150 | 10 | 0.18 | 0.15 | 50 | 20 | - |
| 2N 2193 | N | TO-39 | 800 | 1 | 50 | 40 | 120 | 150 | 10 | 0.35 | 0.15 | 50 | 20 | - |
| 2N 2193A | N | TO-39 | 800 | 1 | 50 | 40 | 120 | 150 | 10 | 0.25 | 0.15 | 50 | 20 | - |
| 2N 2193B | N | TO-39 | 800 | 1 | 50 | 40 | 120 | 150 | 10 | 0.18 | 0.15 | 50 | 20 | - |
| 2N 2195 | N | TO-39 | 800 | 1 | 25 | 20 | - | 150 | 10 | 0.35 | 0.15 | 50 | 20 | - |
| 2N 2195A | N | TO-39 | 800 | 1 | 25 | 20 | - | 150 | 10 | 0.25 | 0.15 | 50 | 20 | - |
| 2N 2195B | N | TO-39 | 800 | 1 | 25 | 20 | - | 150 | 10 | 0.18 | 0.15 | 50 | 20 | - |

* With x-67 heatsink # HFE groupings available • V_{CE}R + Typical value

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | Cob max (pF) | COMPLEMENTARY TYPE |
|----------|----------|-------|---------------------|--------------------|----------------------|-----|-----|---------------------|---------------------|----------|--------------------|--------------------------|--------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| 2N 2218 | N | TO-39 | 800 | 0.8 | 30 | 40 | 120 | 150 | 10 | 0.4 | 0.15 | 250 | 8 | - |
| 2N 2218A | N | TO-39 | 800 | 0.8 | 40 | 40 | 120 | 150 | 10 | 1.0 | 0.5 | 250 | 8 | - |
| 2N 2219 | N | TO-39 | 800 | 0.8 | 30 | 100 | 300 | 150 | 10 | 0.4 | 0.15 | 250 | 8 | - |
| 2N 2219A | N | TO-39 | 800 | 0.8 | 40 | 100 | 300 | 150 | 10 | 1.0 | 0.5 | 250 | 8 | - |
| 2N 2221 | N | TO-18 | 500 | 0.8 | 30 | 40 | 120 | 150 | 10 | 0.4 | 0.15 | 250 | 8 | - |
| 2N 2221A | N | TO-18 | 500 | 0.8 | 40 | 40 | 120 | 150 | 10 | 1.0 | 0.5 | 250 | 8 | - |
| 2N 2222 | N | TO-18 | 500 | 0.8 | 30 | 100 | 300 | 150 | 10 | 0.4 | 0.15 | 250 | 8 | - |
| 2N 2222A | N | TO-18 | 500 | 0.8 | 40 | 100 | 300 | 150 | 10 | 1.0 | 0.5 | 300 | 8 | - |
| 2N 2237 | N | TO-39 | 600 | 0.5 | 20 | 40 | 125 | 100 | 1 | 0.25 | 0.1 | 100 | 35 | - |
| 2N 2243 | N | TO-39 | 800 | 1 | 80 | 40 | 120 | 150 | 10 | 0.25 | 0.15 | 50 | 15 | - |
| 2N 2243A | N | TO-39 | 800 | 1 | 80 | 40 | 120 | 150 | 10 | 0.25 | 0.15 | 50 | 15 | - |
| 2N 2297 | N | TO-39 | 800 | 1 | 35 | 40 | 120 | 150 | 10 | 0.2 | 0.15 | 60 | 12 | - |
| 2N 2303 | P | TO-39 | 600 | 0.5 | 35 | 75 | 200 | 150 | 10 | 1.5 | 0.15 | 60 | 45 | - |
| 2N 2309 | N | TO-39 | 600 | 0.5 | 30 | 25 | 125 | 0.2 | 4 | - | - | 40 | 25 | - |
| 2N 2380 | N | TO-39 | 600 | 0.5 | 40 | 20 | 120 | 150 | 5 | 1.3 | 0.15 | 100 | 14 | - |
| 2N 2380A | N | TO-39 | 600 | 0.5 | 40 | 20 | 120 | 150 | 5 | 1.3 | 0.15 | 100 | 14 | - |
| 2N 2405 | N | TO-39 | 1000 | 1 | 90 | 60 | 200 | 150 | 10 | 0.5 | 0.15 | 50 | 15 | - |
| 2N 2479 | N | TO-39 | 600 | 0.5 | 40 | 30 | 120 | 150 | 1.5 | 0.85 | 0.15 | 150 | 14 | - |
| 2N 2800 | P | TO-39 | 800 | 0.8 | 35 | 30 | 90 | 150 | 10 | 0.4 | 0.15 | 120 | 25 | - |
| 2N 2801 | P | TO-39 | 800 | 0.8 | 35 | 75 | 225 | 150 | 10 | 0.4 | 0.15 | 120 | 25 | - |
| 2N 2837 | P | TO-18 | 500 | 0.8 | 35 | 30 | 90 | 150 | 10 | 0.4 | 0.15 | 120 | 25 | - |
| 2N 2838 | P | TO-18 | 500 | 0.8 | 35 | 75 | 225 | 150 | 10 | 0.4 | 0.15 | 120 | 25 | - |
| 2N 2868 | N | TO-39 | 800 | 1 | 40 | 40 | 120 | 150 | 10 | 0.25 | 0.15 | 50 | 20 | - |
| 2N 2897 | N | TO-18 | 500 | 1 | 45 | 50 | 200 | 150 | 10 | 1 | 0.15 | 100 | 15 | - |
| 2N 2904 | P | TO-39 | 600 | 0.6 | 40 | 40 | 120 | 150 | 10 | 0.4 | 0.15 | 200 | 8 | - |
| 2N 2905 | P | TO-39 | 600 | 0.6 | 40 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | - |
| 2N 2905A | P | TO-39 | 600 | 0.6 | 60 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | - |
| 2N 2906 | P | TO-18 | 400 | 0.6 | 40 | 40 | 120 | 150 | 10 | 0.4 | 0.15 | 200 | 8 | - |
| 2N 2906A | P | TO-18 | 400 | 0.6 | 60 | 40 | 120 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | - |
| 2N 2907 | P | TO-18 | 400 | 0.6 | 40 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | - |
| 2N 2907A | P | TO-18 | 400 | 0.6 | 60 | 100 | 300 | 150 | 10 | 1.6 | 0.5 | 200 | 8 | - |
| 2N 2927 | P | TO-39 | 800 | 0.5 | 25 | 30 | 130 | 50 | 1 | 0.25 | 0.05 | 100 | 20 | - |
| 2N 2958 | N | TO-39 | 600 | 0.6 | 20 | 40 | 120 | 150 | 10 | 0.5 | 0.15 | 250 | 8 | - |
| 2N 2959 | N | TO-39 | 600 | 0.6 | 20 | 100 | 300 | 150 | 10 | 0.5 | 0.15 | 250 | 8 | - |
| 2N 3019 | N | TO-39 | 800 | 1 | 80 | 100 | 300 | 150 | 10 | 0.5 | 0.5 | 100 | 12 | 2N 4033 |
| 2N 3020 | N | TO-39 | 800 | 1 | 80 | 40 | 120 | 150 | 10 | 0.5 | 0.5 | 80 | 12 | 2N 4031 |
| 2N 3036 | N | TO-39 | 800 | 1 | 80 | 50 | 150 | 150 | 10 | 0.25 | 0.15 | 50 | 15 | - |
| 2N 3053 | N | TO-39 | 1000 | 0.7 | 40 | 50 | 250 | 150 | 10 | 1.4 | 0.15 | 100 | 15 | 2N 4037 |
| 2N 3053A | N | TO-39 | 1000 | 0.7 | 60 | 50 | 250 | 150 | 10 | 0.3 | 0.15 | 100 | 15 | - |
| 2N 3072 | P | TO-39 | 800 | 0.5 | 60 | 30 | 130 | 50 | 1 | 1 | 0.3 | 130 | 10 | - |
| 2N 3073 | P | TO-18 | 360 | 0.5 | 60 | 30 | 130 | 50 | 1 | 1 | 0.3 | 130 | 10 | - |
| 2N 3081 | P | TO-39 | 600 | 0.6 | 50 | 30 | 90 | 150 | 10 | 0.3 | 0.15 | 150 | 13 | - |
| 2N 3107 | N | TO-39 | 800 | 1 | 60 | 100 | 300 | 150 | 10 | 1 | 1 | 70 | 20 | 2N 4032 |
| 2N 3108 | N | TO-39 | 800 | 1 | 60 | 40 | 120 | 150 | 10 | 0.25 | 0.15 | 60 | 20 | 2N 4030 |
| 2N 3109 | N | TO-39 | 800 | 1 | 40 | 100 | 300 | 150 | 10 | 1 | 1 | 70 | 25 | 2N 4033 |
| 2N 3110 | N | TO-39 | 800 | 1 | 40 | 40 | 120 | 150 | 10 | 0.25 | 0.15 | 60 | 25 | - |
| 2N 3115 | N | TO-18 | 400 | 0.6 | 20 | 40 | 120 | 150 | 10 | 0.5 | 0.15 | 250 | 8 | - |
| 2N 3116 | N | TO-18 | 400 | 0.6 | 20 | 100 | 300 | 150 | 10 | 0.5 | 0.15 | 250 | 8 | - |
| 2N 3120 | P | TO-39 | 800 | 0.5 | 45 | 30 | 130 | 50 | 1 | 1 | 0.5 | 130 | 10 | - |
| 2N 3121 | P | TO-18 | 360 | 0.5 | 45 | 30 | 130 | 50 | 1 | 1 | 0.5 | 130 | 10 | - |
| 2N 3133 | P | TO-39 | 600 | 0.6 | 35 | 40 | 120 | 150 | 10 | 0.6 | 0.15 | 200 | 10 | - |
| 2N 3134 | P | TO-39 | 600 | 0.6 | 35 | 100 | 300 | 150 | 10 | 0.6 | 0.15 | 200 | 10 | - |
| 2N 3135 | P | TO-18 | 400 | 0.6 | 35 | 40 | 120 | 150 | 10 | 0.6 | 0.15 | 200 | 10 | - |
| 2N 3136 | P | TO-18 | 400 | 0.6 | 35 | 100 | 300 | 150 | 10 | 0.6 | 0.15 | 200 | 10 | - |
| 2N 3252 | N | TO-39 | 1000 | 1 | 30 | 30 | 90 | 500 | 1 | 0.5 | 0.5 | 200 | 12 | - |

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | Cob max (pF) | COMPLEMENTARY TYPE |
|----------|----------|---------|---------------------|--------------------|----------------------|-----|-----|---------------------|---------------------|----------|--------------------|--------------------------|--------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| 2N 3253 | N | TO-39 | 1000 | 1 | 40 | 25 | 75 | 500 | 1 | 0.6 | 0.5 | 175 | 12 | - |
| 2N 3299 | N | TO-39 | 800 | 0.5 | 30 | 40 | 120 | 150 | 10 | 0.6 | 0.5 | 250 | 8 | - |
| 2N 3300 | N | TO-39 | 800 | 0.5 | 30 | 100 | 300 | 150 | 10 | 0.6 | 0.5 | 250 | 8 | - |
| 2N 3301 | N | TO-18 | 360 | 0.5 | 30 | 40 | 120 | 150 | 10 | 0.6 | 0.5 | 250 | 8 | - |
| 2N 3302 | N | TO-18 | 360 | 0.5 | 30 | 100 | 300 | 150 | 10 | 0.6 | 0.5 | 250 | 8 | - |
| 2N 3326 | N | TO-39 | 800 | 0.8 | 45 | 40 | 120 | 150 | 10 | 1.6 | 0.5 | 250 | 8 | - |
| 2N 3402 | N | TO-92B* | 560* | 0.5 | 25 | 75 | 225 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 3403 | N | TO-92B* | 560* | 0.5 | 25 | 180 | 540 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 3404 | N | TO-92B* | 560* | 0.5 | 50 | 75 | 225 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 3405 | N | TO-92B* | 560* | 0.5 | 50 | 180 | 540 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 3414 | N | TO-92B* | 360 | 0.5 | 25 | 75 | 225 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 3415 | N | TO-92B* | 360 | 0.5 | 25 | 180 | 540 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 3416 | N | TO-92B* | 360 | 0.5 | 50 | 75 | 225 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 3417 | N | TO-92B* | 360 | 0.5 | 50 | 180 | 540 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 3444 | N | TO-39 | 1000 | 1 | 50 | 20 | 60 | 500 | 1 | 0.6 | 0.5 | 175 | 12 | - |
| 2N 3502 | P | TO-39 | 800 | 0.6 | 45 | 100 | 300 | 150 | 10 | 1 | 0.3 | 200 | 8 | - |
| 2N 3503 | P | TO-39 | 800 | 0.6 | 60 | 100 | 300 | 150 | 10 | 1 | 0.3 | 200 | 8 | - |
| 2N 3504 | P | TO-18 | 400 | 0.6 | 45 | 100 | 300 | 150 | 10 | 1 | 0.3 | 200 | 8 | - |
| 2N 3505 | P | TO-18 | 400 | 0.6 | 60 | 100 | 300 | 150 | 10 | 1 | 0.3 | 200 | 8 | - |
| 2N 3700 | N | TO-18 | 500 | 1 | 80 | 100 | 300 | 150 | 10 | 0.5 | 0.5 | 100 | 12 | - |
| 2N 3701 | N | TO-18 | 500 | 1 | 80 | 40 | 120 | 150 | 10 | 0.5 | 0.5 | 80 | 12 | - |
| 2N 3702 | P | TO-92B | 360 | 0.2 | 25 | 60 | 300 | 50 | 5 | 0.25 | 0.05 | 100 | 12 | 2N 3704 |
| 2N 3703 | P | TO-92B | 360 | 0.2 | 30 | 30 | 150 | 50 | 5 | 0.25 | 0.05 | 100 | 12 | 2N 3706 |
| 2N 3704 | N | TO-92B | 360 | 0.8 | 30 | 100 | 300 | 50 | 2 | 0.6 | 0.1 | 100 | 12 | 2N 3702 |
| 2N 3705 | N | TO-92B | 360 | 0.8 | 30 | 50 | 150 | 50 | 2 | 0.8 | 0.1 | 100 | 12 | 2N 3702 |
| 2N 3706 | N | TO-92B | 360 | 0.8 | 20 | 30 | 600 | 50 | 2 | 1 | 0.1 | 100 | 12 | 2N 3703 |
| 2N 3724 | N | TO-39 | 800 | 0.5 | 30 | 60 | 150 | 100 | 1 | 0.75 | 1 | 300 | 12 | - |
| 2N 3724A | N | TO-39 | 1000 | 1.2 | 30 | 60 | 150 | 100 | 1 | 0.65 | 0.8 | 300 | 12 | - |
| 2N 3725 | N | TO-39 | 800 | 0.5 | 50 | 60 | 150 | 100 | 1 | 0.95 | 1 | 300 | 10 | - |
| 2N 3793 | N | TO-92B | 250 | 0.5 | 20 | 20 | 120 | 10 | 10 | 0.4 | 10 | 100 | 10 | - |
| 2N 3794 | N | TO-92B | 250 | 0.5 | 20 | 100 | 600 | 10 | 10 | 0.4 | 10 | 100 | 10 | - |
| 2N 3831 | N | TO-39 | 1000 | 1.2 | 40 | 35 | - | 150 | 1 | 0.3 | 0.15 | 200 | 12 | - |
| 2N 3945 | N | TO-39 | 5000▲ | 1 | 50 | 40 | 250 | 150 | 10 | 0.5 | 0.15 | 60 | 12 | - |
| 2N 4030 | P | TO-39 | 800 | 1 | 60 | 40 | 120 | 100 | 5 | 0.5 | 0.5 | 100 | 20 | 2N 3108 |
| 2N 4031 | P | TO-39 | 800 | 1 | 80 | 40 | 120 | 100 | 5 | 0.5 | 0.5 | 100 | 20 | 2N 3020 |
| 2N 4032 | P | TO-39 | 800 | 1 | 60 | 100 | 300 | 100 | 5 | 0.5 | 0.5 | 150 | 20 | 2N 3107 |
| 2N 4033 | P | TO-39 | 800 | 1 | 80 | 100 | 300 | 100 | 5 | 0.5 | 0.5 | 150 | 20 | 2N 3109 |
| 2N 4036 | P | TO-39 | 1000 | 1 | 65 | 40 | 140 | 150 | 10 | 0.65 | 0.15 | 60 | 30 | 2N 2102 |
| 2N 4037 | P | TO-39 | 1000 | 1 | 40 | 50 | 250 | 150 | 10 | 1.4 | 0.15 | 60 | 30 | 2N 3053 |
| 2N 4046 | N | TO-39 | 800 | 0.5 | 30 | 40 | 150 | 100 | 1 | 0.65 | 0.8 | 250 | 12 | - |
| 2N 4047 | N | TO-39 | 800 | 0.5 | 50 | 40 | 150 | 100 | 1 | 0.8 | 0.8 | 250 | 10 | - |
| 2N 4140 | N | TO-106 | 300 | 0.2 | 30 | 40 | 120 | 150 | 10 | 0.4 | 0.15 | 250 | 8 | - |
| 2N 4141 | N | TO-106 | 300 | 0.2 | 30 | 100 | 300 | 150 | 10 | 0.4 | 0.15 | 250 | 8 | - |
| 2N 4142 | P | TO-106 | 300 | 0.2 | 40 | 40 | 120 | 150 | 10 | 0.4 | 0.15 | 200 | 8 | - |
| 2N 4143 | P | TO-106 | 300 | 0.2 | 40 | 100 | 300 | 150 | 10 | 0.4 | 0.15 | 200 | 8 | - |
| 2N 4227 | N | TO-106 | 300 | 0.2 | 30 | 75 | 150 | 150 | 10 | 0.4 | 0.15 | 250 | 8 | - |
| 2N 4228 | P | TO-106 | 300 | 0.2 | 40 | 75 | 150 | 150 | 10 | 0.4 | 0.15 | 200 | 8 | - |
| 2N 4234 | P | TO-39 | 1000 | 3 | 40 | 30 | 150 | 250 | 1 | 0.6 | 1 | 3 | 100 | 2N 4237 |
| 2N 4235 | P | TO-39 | 1000 | 3 | 60 | 30 | 150 | 250 | 1 | 0.6 | 1 | 3 | 100 | 2N 4238 |
| 2N 4236 | P | TO-39 | 1000 | 1 | 80 | 30 | 150 | 250 | 1 | 0.6 | 1 | 3 | 100 | 2N 4239 |
| 2N 4237 | N | TO-39 | 1000 | 1 | 40 | 30 | 150 | 250 | 1 | 0.6 | 1 | 2 | 100 | 2N 4234 |
| 2N 4238 | N | TO-38 | 1000 | 1 | 60 | 30 | 150 | 250 | 1 | 0.6 | 1 | 2 | 100 | 2N 4235 |
| 2N 4239 | N | TO-39 | 1000 | 1 | 80 | 30 | 150 | 250 | 1 | 0.3 | 0.5 | 2 | 100 | 2N 4236 |
| 2N 4314 | P | TO-39 | 1000 | 1 | 65 | 50 | 250 | 150 | 10 | 1.4 | 0.15 | 60 | 30 | - |
| 2N 4400 | N | TO-92A | 500♦ | 0.6 | 40 | 50 | 150 | 150 | 1 | 0.75 | 0.5 | 200 | 6.5 | 2N 4402 |

* With x-67 heat sink ▲ T_C = 25°C ♦ 310 mW in JEDEC registration

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | H _{FE} | | | | V _{CE(SAT)} | | f _T min (MHz) | C _{ob} max (pF) | COMPLEMENTARY TYPE |
|----------|----------|---------|---------------------|--------------------|----------------------|-----------------|-----|---------------------|---------------------|----------------------|--------------------|--------------------------|--------------------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| 2N 4401 | N | TO-92A | 500♦ | 0.6 | 40 | 100 | 300 | 150 | 1 | 0.75 | 0.5 | 250 | 6.5 | 2N 4403 |
| 2N 4402 | P | TO-92A | 500♦ | 0.6 | 40 | 50 | 150 | 150 | 1 | 0.75 | 0.5 | 150 | 8.5 | 2N 4400 |
| 2N 4403 | P | TO-92A | 500♦ | 0.6 | 40 | 100 | 300 | 150 | 1 | 0.75 | 0.5 | 200 | 8.5 | 2N 4401 |
| 2N 4409 | N | TO-92A | 625 | 250 | 50 | 60 | 400 | 10 | 1 | 0.2 | 0.001 | 60 | 12 | - |
| 2N 4424 | N | TO-92B | 360 | 0.5 | 40 | 180 | 540 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 4425 | N | TO-92B* | 560* | 0.5 | 40 | 180 | 540 | 2 | 4.5 | 0.3 | 0.05 | - | - | - |
| 2N 4944 | N | TO-106 | 600 | 0.5 | 40 | 40 | 120 | 150 | 1 | 0.25 | 0.15 | 60 | 25 | - |
| 2N 4945 | N | TO-106 | 600 | 0.5 | 60 | 40 | 120 | 150 | 1 | 0.25 | 0.15 | 60 | 20 | - |
| 2N 4946 | N | TO-106 | 600 | 0.5 | 40 | 100 | 300 | 150 | 1 | 0.25 | 0.15 | 60 | 25 | - |
| 2N 4951 | N | TO-92B | 360 | 0.5 | 30 | 60 | 200 | 150 | 10 | 0.3 | 0.15 | 250 | 8 | - |
| 2N 4952 | N | TO-92B | 360 | 0.5 | 30 | 100 | 300 | 150 | 10 | 0.3 | 0.15 | 250 | 8 | - |
| 2N 4953 | N | TO-92B | 360 | 0.5 | 30 | 200 | 600 | 150 | 10 | 0.3 | 0.15 | 250 | 8 | - |
| 2N 4954 | N | TO-92B | 360 | 0.5 | 30 | 60 | 600 | 150 | 10 | 0.3 | 0.15 | 250 | 8 | - |
| 2N 4969 | N | TO-106 | 200 | 0.5 | 30 | 40 | 120 | 150 | 10 | 0.4 | 0.15 | 200 | 8 | - |
| 2N 4970 | N | TO-106 | 200 | 0.5 | 30 | 100 | 350 | 150 | 10 | 0.4 | 0.15 | 200 | 8 | - |
| 2N 4971 | P | TO-106 | 200 | 0.5 | 40 | 40 | 120 | 150 | 10 | 0.15 | 0.15 | 200 | 8 | - |
| 2N 4972 | P | TO-106 | 200 | 0.5 | 40 | 100 | 300 | 150 | 10 | 0.4 | 0.15 | 200 | 8 | - |
| 2N 5022 | P | TO-39 | 1000 | 0.5 | 50 | 25 | 100 | 500 | 1 | 0.2 | 0.1 | 170 | 25 | - |
| 2N 5023 | P | TO-39 | 1000 | 0.5 | 30 | 40 | 100 | 500 | 1 | 0.17 | 0.1 | 200 | 25 | - |
| 2N 5042 | P | TO-39 | 800 | 1 | 40 | 40 | 150 | 150 | 1 | 1.3 | 1 | 100 | 35 | 2N 3110 |
| 2N 5143 | P | TO-106 | 200 | 0.5 | 20 | 30 | - | 50 | 1 | 2 | 0.3 | 100 | 10 | - |
| 2N 5220 | N | TO-92A | 350 | 0.5 | 15 | 30 | 600 | 50 | 10 | 0.5 | 0.15 | 100 | 10 | 2N 5221 |
| 2N 5221 | P | TO-92A | 350 | 0.5 | 15 | 30 | 600 | 50 | 10 | 0.5 | 0.15 | 100 | 15 | 2N 5220 |
| 2N 5225 | N | TO-92A | 350 | 0.2 | 25 | 30 | 600 | 50 | 10 | 0.8 | 0.1 | 50 | 20 | 2N 5226 |
| 2N 5226 | P | TO-92A | 350 | 0.2 | 25 | 30 | 600 | 50 | 10 | 0.8 | 0.1 | 50 | 20 | 2N 5225 |
| 2N 5354 | P | TO-92B* | 360 | 0.5 | 25 | 40 | 120 | 50 | 1 | 1 | 0.3 | 100 | 8 | - |
| 2N 5355 | P | TO-92B* | 360 | 0.5 | 25 | 100 | 300 | 50 | 1 | 1 | 0.3 | 100 | 8 | - |
| 2N 5356 | P | TO-92B* | 360 | 0.5 | 25 | 250 | 500 | 50 | 1 | 1 | 0.3 | 100 | 8 | - |
| 2N 5365 | P | TO-92B* | 360 | 0.5 | 40 | 40 | 120 | 50 | 1 | 1 | 0.3 | 100 | 8 | - |
| 2N 5366 | P | TO-92B* | 360 | 0.5 | 40 | 100 | 300 | 50 | 1 | 1 | 0.3 | 100 | 8 | - |
| 2N 5367 | P | TO-92B* | 360 | 0.5 | 40 | 250 | 500 | 50 | 1 | 1 | 0.3 | 100 | 8 | - |
| 2N 5368 | N | TO-92F | 500▲ | 0.5 | 30 | 60 | 200 | 150 | 10 | 0.3 | 0.15 | 250 | 8 | 2N 5372 |
| 2N 5369 | N | TO-92F | 500▲ | 0.5 | 30 | 100 | 300 | 150 | 10 | 0.3 | 0.15 | 250 | 8 | 2N 5373 |
| 2N 5370 | N | TO-92F | 500▲ | 0.5 | 30 | 200 | 600 | 150 | 10 | 0.3 | 0.15 | 250 | 8 | 2N 5374 |
| 2N 5371 | N | TO-92F | 500▲ | 0.5 | 30 | 60 | 600 | 150 | 10 | 0.3 | 0.15 | 250 | 8 | 2N 5375 |
| 2N 5372 | P | TO-92F | 500▲ | 0.5 | 30 | 40 | 120 | 150 | 10 | 0.3 | 0.15 | 150 | 10 | 2N 5368 |
| 2N 5373 | P | TO-92F | 500▲ | 0.5 | 30 | 100 | 300 | 150 | 10 | 0.3 | 0.15 | 150 | 10 | 2N 5369 |
| 2N 5374 | P | TO-92F | 500▲ | 0.5 | 30 | 200 | 400 | 150 | 10 | 0.3 | 0.15 | 150 | 10 | 2N 5370 |
| 2N 5375 | P | TO-92F | 500▲ | 0.5 | 30 | 40 | 400 | 150 | 10 | 0.3 | 0.15 | 150 | 12 | 2N 5371 |
| 2N 5418 | N | TO-92B | 400 | 0.5 | 25 | 40 | 120 | 50 | 1 | 1 | 0.3 | - | 6 | - |
| 2N 5419 | N | TO-92B | 400 | 0.5 | 25 | 100 | 300 | 50 | 1 | 1 | 0.3 | - | 6 | - |
| 2N 5420 | N | TO-92B | 400 | 0.5 | 25 | 250 | 500 | 50 | 1 | 1 | 0.3 | - | 6 | - |
| 2N 5447 | P | TO-92F | 500▲ | 0.2 | 25 | 60 | 300 | 50 | 5 | 0.25 | 0.05 | 100 | 12 | 2N 5449 |
| 2N 5448 | P | TO-92F | 500▲ | 0.2 | 30 | 30 | 150 | 50 | 5 | 0.25 | 0.05 | 100 | 12 | 2N 5450 |
| 2N 5449 | N | TO-92F | 500▲ | 0.8 | 30 | 100 | 300 | 50 | 2 | 0.6 | 0.1 | 100 | 12 | 2N 5447 |
| 2N 5450 | N | TO-92F | 500▲ | 0.8 | 30 | 50 | 150 | 50 | 2 | 0.8 | 0.1 | 100 | 12 | 2N 5448 |
| 2N 5451 | N | TO-92F | 360 | 0.8 | 20 | 30 | 600 | 50 | 2 | 1 | 0.1 | 100 | 12 | - |
| 2N 5810 | N | TO-92F | 625* | 0.75 | 25 | 60 | 200 | 2 | 2 | 0.75 | 0.5 | 100 | 15 | 2N 5811 |
| 2N 5811 | P | TO-92F | 625* | 0.75 | 25 | 60 | 200 | 2 | 2 | 0.75 | 0.5 | 100 | 15 | 2N 5810 |
| 2N 5812 | N | TO-92F | 625* | 0.75 | 25 | 150 | 500 | 2 | 2 | 0.75 | 0.5 | 135 | 15 | 2N 5813 |
| 2N 5813 | P | TO-92F | 625* | 0.75 | 25 | 150 | 500 | 2 | 2 | 0.75 | 0.5 | 135 | 15 | 2N 5812 |
| 2N 5814 | N | TO-92F | 625* | 0.75 | 40 | 60 | 120 | 2 | 2 | 0.75 | 0.5 | 100 | 15 | 2N 5815 |
| 2N 5815 | P | TO-92F | 625* | 0.75 | 40 | 60 | 120 | 2 | 2 | 0.75 | 0.5 | 100 | 15 | 2N 5814 |
| 2N 5816 | N | TO-92F | 625* | 0.75 | 40 | 100 | 200 | 2 | 2 | 0.75 | 0.5 | 120 | 15 | 2N 5817 |
| 2N 5817 | P | TO-92F* | 800* | 0.75 | 40 | 100 | 200 | 2 | 2 | 0.75 | 0.5 | 120 | 15 | 2N 5816 |

* With x-67 heat sink ▲ 360 mW in JEDEC registration ♦ 310 mW in JEDEC registration

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | C _{ob} max (pF) | COMPLEMENTARY TYPE |
|----------|----------|---------|---------------------|--------------------|----------------------|-----|------|---------------------|---------------------|----------|--------------------|--------------------------|--------------------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| 2N 5818 | N | TO-92F* | 800* | 0.75 | 40 | 150 | 300 | 2 | 2 | 0.75 | 0.5 | 135 | 15 | 2N 5819 |
| 2N 5819 | P | TO-92F* | 800* | 0.75 | 40 | 150 | 300 | 2 | 2 | 0.75 | 0.5 | 135 | 15 | 2N 5818 |
| 2N 5820 | N | TO-92F* | 800* | 1 | 60 | 60 | 120 | 2 | 2 | 0.75 | 0.5 | 140+ | 15 | 2N 5821 |
| 2N 5821 | P | TO-92F* | 800* | 1 | 60 | 60 | 120 | 2 | 2 | 0.75 | 0.5 | 140+ | 15 | 2N 5820 |
| 2N 5822 | N | TO-92F* | 800* | 1 | 60 | 100 | 200 | 2 | 2 | 0.75 | 0.5 | 140+ | 15 | 2N 5823 |
| 2N 5823 | P | TO-92F* | 800* | 1 | 60 | 100 | 200 | 2 | 2 | 0.75 | 0.5 | 140+ | 15 | 2N 5822 |
| 2SA 497 | P | TO-39 | 600 | 0.8 | 80 | 40 | 240# | 200 | 2 | 0.8 | 0.2 | 70+ | 33+ | 2SC 497 |
| 2SA 498 | P | TO-39 | 600 | 0.8 | 50 | 40 | 240# | 200 | 2 | 0.8 | 0.2 | 70+ | 33+ | 2SC 498 |
| 2SA 503 | P | TO-39 | 800 | 0.6 | 50 | 30 | 300# | 150 | 2 | 0.5 | 0.15 | 50 | 30 | 2SC 503 |
| 2SA 504 | P | TO-39 | 800 | 0.6 | 30 | 30 | 300# | 150 | 2 | 0.5 | 0.15 | 50 | 30 | 2SC 504 |
| 2SA 532 | P | TO-39 | 500 | 0.2 | 50 | 40 | 320# | 50 | 6 | 1.5 | 0.1 | 100+ | - | - |
| 2SA 539 | P | TO-92B | 250 | 0.2 | 45 | 50 | 232# | 50 | 1 | 0.5 | 0.15 | 100 | 5.5+ | 2SC 815 |
| 2SA 544 | P | TO-39 | 750 | 0.2 | 45 | 40 | 200# | 10 | 10 | 0.4 | 0.03 | 80 | 7 | - |
| 2SA 545 | P | TO-92B* | 400 | 0.2 | 60 | 50 | 232# | 50 | 1 | 0.5 | 0.15 | 100 | 7 | 2SC 853 |
| 2SA 606 | P | TO-39 | 700▲ | 0.7 | 80 | 40 | 200# | 200 | 5 | 2 | 0.5 | 50 | 50 | - |
| 2SA 642 | P | TO-92B | 250 | 0.3 | 15 | 65 | 400# | 50 | 1 | 0.6 | 0.3 | 180+ | 30 | 2SD 227 |
| 2SA 643 | P | TO-92B | 500 | 0.5 | 20 | 60 | 285# | 100 | 1 | 0.6 | 0.5 | 110+ | 30 | 2SD 261 |
| 2SA 659 | P | TO-92B | 300 | 0.2 | 50 | 40 | 320# | 50 | 6 | 1.5 | 0.1 | 90+ | - | 2SC 1175 |
| 2SA 708 | P | TO-39 | 800 | 0.7 | 60 | 80 | 240# | 50 | 2 | 0.7 | 0.5 | 100+ | 25+ | - |
| 2SA 719 | P | TO-92B | 400 | 0.5 | 25 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 160+ | 15 | 2SC 1317 |
| 2SA 720 | P | TO-92B | 400 | 0.5 | 50 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 160+ | 15 | 2SC 1318 |
| 2SA 723 | P | TO-92B | 250 | 0.5 | 20 | 60 | 285# | 100 | 1 | 0.6 | 0.5 | 110+ | - | 2SD 327 |
| 2SA 730 | P | TO-92B* | 600 | 0.5 | 25 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 160+ | 15 | 2SC 1346 |
| 2SA 731 | P | TO-92B* | 600 | 0.5 | 50 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 160+ | 15 | 2SC 1347 |
| 2SA 733 | P | TO-92B | 250 | 0.1 | 40 | 60 | 600# | 1 | 6 | 0.5 | 0.03 | 50 | 12 | 2SC 945 |
| 2SA 817 | P | TO-92B | 600 | 0.3 | 80 | 70 | 240# | 50 | 2 | 0.4 | 0.2 | 100+ | 17+ | 2SC 1627 |
| 2SA 890 | P | TO-92A | 625 | 0.5 | 25 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 200+ | 15 | 2SC 1851 |
| 2SA 891 | P | TO-92A | 625 | 0.5 | 50 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 200+ | 15 | 2SC 1852 |
| 2SA 950 | P | TO-92B | 600 | 0.8 | 25 | 100 | 320# | 100 | 1 | 0.7 | 0.5 | 120+ | 19+ | 2SC 2120 |
| 2SB 560 | P | TO-92B | 750 | 0.7 | 80 | 60 | 320# | 50 | 5 | 0.8 | 0.5 | 100+ | 15+ | 2SD 438 |
| 2SB 598 | P | TO-92B | 500 | 1 | 20 | 60 | 560# | 50 | 2 | 0.5 | 0.5 | 180+ | 25+ | 2SD 545 |
| 2SB 621 | P | TO-92B | 600 | 1.5 | 25 | 60 | - | 500 | 10 | - | - | 200+ | 20+ | - |
| 2SC 32 | N | TO-39 | 750 | 0.2 | 25 | 40 | 110 | 10 | 10 | 0.5 | 0.03 | 120 | 7 | - |
| 2SC 497 | N | TO-39 | 600 | 0.8 | 80 | 40 | 240# | 200 | 2 | 0.8 | 0.2 | 50+ | 15+ | 2SA 497 |
| 2SC 498 | N | TO-39 | 600 | 0.8 | 50 | 40 | 240# | 200 | 2 | 0.8 | 0.2 | 50+ | 15+ | 2SA 498 |
| 2SC 503 | N | TO-39 | 800 | 0.6 | 50 | 30 | 300# | 150 | 2 | 0.5 | 0.15 | 50 | 30 | 2SA 503 |
| 2SC 504 | N | TO-39 | 800 | 0.6 | 30 | 30 | 300# | 150 | 2 | 0.5 | 0.15 | 50 | 30 | 2SA 504 |
| 2SC 815 | N | TO-92B | 250 | 0.2 | 45 | 50 | 232# | 50 | 1 | 0.5 | 0.15 | 100 | 8 | 2SA 539 |
| 2SC 853 | N | TO-92B* | 400 | 0.2 | 60 | 50 | 232# | 50 | 1 | 0.5 | 0.15 | 150+ | - | 2SA 545 |
| 2SC 875 | N | TO-39 | 500 | 0.2 | 75 | 40 | 320# | 50 | 6 | 1.5 | 0.1 | 170+ | 5+ | - |
| 2SC 876 | N | TO-39 | 500 | 0.2 | 50 | 40 | 320# | 50 | 6 | 1.5 | 0.1 | 170+ | 5+ | - |
| 2SC 881 | N | TO-92B* | 400 | 0.2 | 45 | 50 | 232# | 50 | 1 | 0.5 | 0.15 | 150+ | - | - |
| 2SC 933 | N | TO-92B | 300 | 0.3 | 30 | 40 | 560# | 20 | 5 | - | - | - | - | - |
| 2SC 934 | N | TO-92B | 300 | 0.3 | 15 | 40 | 560# | 20 | 5 | - | - | - | - | - |
| 2SC 938 | N | TO-92B | 250 | 0.2 | 60 | 50 | 232# | 50 | 1 | 0.5 | 0.15 | 150+ | - | - |
| 2SC 959 | N | TO-39 | 700 | 0.7 | 80 | 40 | 200# | 200 | 5 | 2 | 0.5 | 50 | 50 | - |
| 2SC 1008 | N | TO-39 | 800 | 0.7 | 60 | 80 | 240# | 50 | 2 | 0.7 | 0.5 | 75+ | 17+ | - |
| 2SC 1175 | N | TO-92B | 300 | 0.2 | 50 | 40 | 320# | 50 | 6 | 1.5 | 0.1 | 170+ | - | 2SA 659 |
| 2SC 1317 | N | TO-92B | 400 | 0.5 | 25 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 200+ | 15 | 2SA 719 |
| 2SC 1318 | N | TO-92B | 400 | 0.5 | 50 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 200+ | 15 | 2SA 720 |
| 2SC 1346 | N | TO-92B | 600 | 0.5 | 25 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 200+ | 15 | 2SA 730 |
| 2SC 1347 | N | TO-92B | 600 | 0.5 | 50 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 200+ | 15 | 2SA 731 |

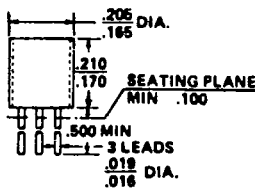
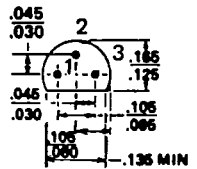
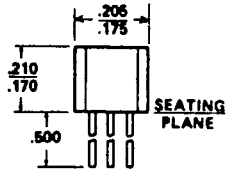
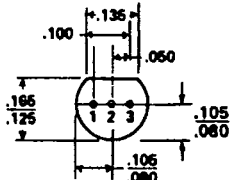
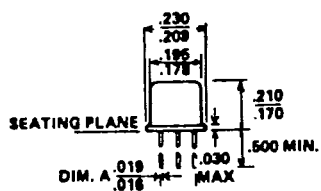
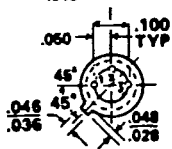
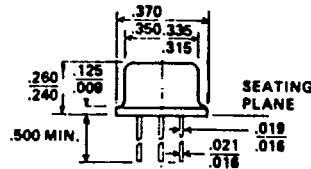
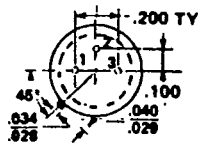
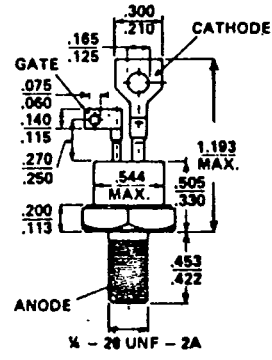
▲ T_C = 25°C * With x-67 heat sink # HFE groupings available + Typical value

Medium Power Transistors

| TYPE NO. | POLARITY | CASE | MAXIMUM RATINGS | | | HFE | | | | VCE(SAT) | | f _T min (MHz) | Cob max (pF) | COMPLEMENTARY TYPE |
|----------|----------|---------|---------------------|--------------------|----------------------|-----|------|---------------------|---------------------|----------|--------------------|--------------------------|--------------|--------------------|
| | | | P _d (mW) | I _C (A) | V _{CEO} (V) | min | max | I _C (mA) | V _{CE} (V) | max (V) | I _C (A) | | | |
| 2SC 1627 | N | TO-92B | 600 | 0.3 | 80 | 70 | 240# | 50 | 2 | 0.4 | 0.2 | 100+ | 10+ | 2SA 817 |
| 2SC 1788 | N | TO-92B | 600 | 0.5 | 20 | 65 | 220# | 500 | 2 | 0.4 | 0.5 | 150+ | 15 | - |
| 2SC 1851 | N | TO-92A | 625 | 0.5 | 25 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 200+ | 15 | 2SA 890 |
| 2SC 1852 | N | TO-92A | 625 | 0.5 | 50 | 60 | 340# | 150 | 10 | 0.6 | 0.5 | 200+ | 15 | 2SA 891 |
| 2SC 2120 | N | TO-92B | 600 | 0.8 | 25 | 100 | 320# | 100 | 1 | 0.5 | 0.5 | 120+ | 13+ | 2SA 950 |
| 2SD 227 | N | TO-92B | 250 | 0.3 | 15 | 65 | 400# | 50 | 1 | 0.5 | 0.3 | 120+ | - | 2SA 642 |
| 2SD 261 | N | TO-92B* | 500 | 0.5 | 20 | 60 | 285# | 100 | 1 | 0.6 | 0.5 | 120+ | - | 2SA 643 |
| 2SD 327 | N | TO-92B | 250 | 0.5 | 20 | 60 | 285# | 100 | 1 | 0.6 | 0.5 | 120+ | - | 2SA 723 |
| 2SD 545 | N | TO-92B | 500 | 1 | 20 | 60 | 560# | 50 | 2 | 0.3 | 0.5 | 180+ | 15+ | 2SB 598 |
| 2SD 592 | N | TO-92B | 600 | 1.5 | 25 | 60 | - | 500 | 10 | - | - | 200+ | 10+ | - |

* With x-67 heat sink # HFE groupings available + Typical value

Packaging Information

| | | |
|--|---|---|
| <p>PACKAGING INFORMATION</p> | <p>1. CATHODE 2. GATE 3. ANODE</p>   | <p>SCR 1. CATHODE 2. GATE 3. ANODE</p>   |
| | <p>TO-18 (PLASTIC)</p> | <p>TO-92</p> |
| <p>1. CATHODE 2. GATE 3. ANODE</p>   | <p>SCR 1. CATHODE 2. GATE 3. ANODE</p> <p>TRIAK 1. MT 1 2. GATE 3. MT 2</p>   |  |
| <p>TO-18</p> | <p>TO-39</p> | <p>TO-48D</p> |