## 1N3488–1N3566

| TYPE | MATERIAL | REPLACEMENT | PAGE NUMBER | IDENTIFICATION | RECTIFIERS | | | | | ZENER DIODES | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | $V_R$ (volts) | $V_F$ (volts) | $I_O$ (Amps) | $I_R$ (mA) | $I_{surge}$ (Amps) | $V_Z$ (min) | $V_Z$ (nom) * / $V_Z$ (max) | Tol $V_Z$ % | $P_D$ |
| | | | | | SIGNAL DIODES | | | | | REFERENCE DIODES | | | |
| | | | | | PRV (volts) | $V_F$ @ $I_F$ (volts) | | $I_R$ | $t_{rr}$ (μs) | TC %/°C | $V_Z$ | T (min) °C | T (max) °C |
| 1N3488 | | Varactor Diode, See table on page 1-86 | | | | | | | | | | | |
| 1N3489 thru 1N3490 | | 4-Layer Diodes, See table on page 1-96 | | | | | | | | | | | |
| 1N3491 | S | | | R | 50 | 1.7 | 18 | 1.0 | 300 | | | | |
| 1N3492 | S | | | R | 100 | 1.7 | 18 | 1.0 | 300 | | | | |
| 1N3493 | S | | | R | 200 | 1.7 | 18 | 1.0 | 300 | | | | |
| 1N3494 | S | | | R | 300 | 1.7 | 18 | 1.0 | 300 | | | | |
| 1N3495 | S | | | R | 400 | 1.7 | 18 | 1.0 | 300 | | | | |
| 1N3496 | S | 1N829 | 2-45 | RD | | | | | | 0.005 | 6.5 | 0 | 75 |
| 1N3497 | S | 1N827 | 2-45 | RD | | | | | | 0.002 | 6.5 | 0 | 75 |
| 1N3498 | S | 1N825 | 2-45 | RD | | | | | | 0.001 | 6.5 | 0 | 75 |
| 1N3499 | S | 1N823 | 2-45 | RD | | | | | | 0.0005 | 6.5 | 0 | 75 |
| 1N3500 | S | 1N821 | 2-45 | RD | | | | | | 0.01 | 6.5 | 0 | 75 |
| 1N3501 | S | MZ640 | 2-52 | RD | | | | | | | 6.5 | 25 | 100 |
| 1N3502 | S | MZ620 | 2-52 | RD | | | | | | | 6.5 | 25 | 100 |
| 1N3503 | S | MZ610 | 2-52 | RD | | | | | | | 6.5 | 25 | 100 |
| 1N3504 | S | MZ605 | 2-52 | RD | | | | | | | 6.5 | 25 | 100 |
| 1N3506 | S | 1N5226B | 2-32 | ZD | | | | | | | 3.3* | 5.0 | 400M |
| 1N3507 | S | 1N5227B | 2-32 | ZD | | | | | | | 3.6* | 5.0 | 400M |
| 1N3508 | S | 1N5228B | 2-32 | ZD | | | | | | | 3.9* | 5.0 | 400M |
| 1N3509 | S | 1N5229B | 2-32 | ZD | | | | | | | 4.3* | 5.0 | 400M |
| 1N3510 | S | 1N5230B | 2-32 | ZD | | | | | | | 4.7* | 5.0 | 400M |
| 1N3511 | S | 1N5231B | 2-32 | ZD | | | | | | | 5.1* | 5.0 | 400M |
| 1N3512 | S | 1N5232B | 2-32 | ZD | | | | | | | 5.6* | 5.0 | 400M |
| 1N3513 | S | 1N5234B | 2-32 | ZD | | | | | | | 6.2* | 5.0 | 400M |
| 1N3514 | S | 1N5235B | 2-32 | ZD | | | | | | | 6.8* | 5.0 | 400M |
| 1N3515 | S | 1N5236B | 2-32 | ZD | | | | | | | 7.5* | 5.0 | 400M |
| 1N3516 | S | 1N5237B | 2-32 | ZD | | | | | | | 8.2* | 5.0 | 400M |
| 1N3517 | S | 1N5239B | 2-32 | ZD | | | | | | | 9.1* | 5.0 | 400M |
| 1N3518 | S | 1N5240B | 2-32 | ZD | | | | | | | 10* | 5.0 | 400M |
| 1N3519 | S | 1N5241B | 2-32 | ZD | | | | | | | 11* | 5.0 | 400M |
| 1N3520 | S | 1N5242B | 2-32 | ZD | | | | | | | 12* | 5.0 | 400M |
| 1N3521 | S | 1N5243B | 2-32 | ZD | | | | | | | 13* | 5.0 | 400M |
| 1N3522 | S | 1N5245B | 2-32 | ZD | | | | | | | 15* | 5.0 | 400M |
| 1N3523 | S | 1N5246B | 2-32 | ZD | | | | | | | 16* | 5.0 | 400M |
| 1N3524 | S | 1N5248B | 2-32 | ZD | | | | | | | 18* | 5.0 | 400M |
| 1N3525 | S | 1N5250B | 2-32 | ZD | | | | | | | 20* | 5.0 | 400M |
| 1N3526 | S | 1N5251B | 2-32 | ZD | | | | | | | 22* | 5.0 | 400M |
| 1N3527 | S | 1N5252B | 2-32 | ZD | | | | | | | 24* | 5.0 | 400M |
| 1N3528 | S | 1N5254B | 2-32 | ZD | | | | | | | 27* | 5.0 | 400M |
| 1N3529 | S | 1N5256B | 2-32 | ZD | | | | | | | 30* | 5.0 | 400M |
| 1N3530 | S | 1N5257B | 2-32 | ZD | | | | | | | 33* | 5.0 | 400M |
| 1N3531 | S | 1N5258B | 2-32 | ZD | | | | | | | 36* | 5.0 | 400M |
| 1N3532 | S | 1N5259B | 2-32 | ZD | | | | | | | 39* | 5.0 | 400M |
| 1N3533 | S | 1N5260B | 2-32 | ZD | | | | | | | 43* | 5.0 | 400M |
| 1N3534 | S | 1N5261B | 2-32 | ZD | | | | | | | 47* | 5.0 | 400M |
| 1N3535 | S | | | GP | 200 | 0.549 | 100M | | | | | | |
| 1N3536 | S | | | GP | 70 | 0.65 | 1.0M | 25N | | | | | |
| 1N3537 | S | 1N4741A† | 2-29 | ZD | | | | | | | 12* | | 1.0W |
| 1N3538 | S | | | GP | 150 | | 2.5M | 2.0* | | | | | |
| 1N3539 | S | Backward Diode | | | | | | | | | | | |
| 1N3539A | S | Backward Diode | | | | | | | | | | | |
| 1N3540 | S | Backward Diode | | | | | | | | | | | |
| 1N3540A | S | Backward Diode | | | | | | | | | | | |
| 1N3541 | S | Backward Diode | | | | | | | | | | | |
| 1N3541A | S | Backward Diode | | | | | | | | | | | |
| 1N3542 | S | Backward Diode | | | | | | | | | | | |
| 1N3542A | S | Backward Diode | | | | | | | | | | | |
| 1N3543 | S | Backward Diode | | | | | | | | | | | |
| 1N3543A | S | Backward Diode | | | | | | | | | | | |
| 1N3544 | S | 1N4002 | 3-24 | R | 100 | 1.5 | 0.6 | 0.2 | 15 | | | | |
| 1N3545 | S | 1N4003 | 3-24 | R | 200 | 1.5 | 0.6 | 0.2 | 15 | | | | |
| 1N3546 | S | 1N4004 | 3-24 | R | 300 | 1.5 | 0.6 | 0.2 | 15 | | | | |
| 1N3547 | S | 1N4004 | 3-24 | R | 400 | 1.5 | 0.6 | 0.2 | 15 | | | | |
| 1N3548 | S | 1N4005 | 3-24 | R | 500 | 1.5 | 0.6 | 0.2 | 15 | | | | |
| 1N3549 | S | 1N4005 | 3-24 | R | 600 | 1.5 | 0.6 | 0.2 | 15 | | | | |
| 1N3550 | S | | | MS | 180 | 1.0 | 50M | | 1.5 | | | | |
| 1N3551 thru 1N3552 | | Varactor Diodes, See table on page 1-86 | | | | | | | | | | | |
| 1N3553 | S | 1N821 | 2-45 | RD | | | | | | 0.0001 | 6.3 | -55 | 100 |
| 1N3554 thru 1N3557 | | Varactor Diodes, See table on page 1-86 | | | | | | | | | | | |
| 1N3558 | S | Matched Pair of 1N751A's, Zener Diode | | | | | | | | | | | |
| 1N3559 | G | | | GP | 24 | 1.0 | 200M | 20* | | | | | |
| 1N3560 thru 1N3562 | | Tunnel Diodes, See table on page 1-92 | | | | | | | | | | | |
| 1N3563 | S | | | R | 1000 | 1.2 | 0.4 | 0.2 | 40 | | | | |
| 1N3564 | G | | | GP | 15 | 1.0 | 40M | | | | | | |
| 1N3565 | S | | | HC | 6.0 | 2.0 | 2.0A | 25M | | | | | |
| 1N3566 | S | | | R | 800 | 2.25 | 1.0 | 0.5 | 20 | | | | |

**R**—Rectifier, **RD**—Reference Diode, **ZD**—Zener Diode, **GP**—General Purpose, **HC**—High Conductance (≥ 20 mA @ ≤ 1 V), **HS**—High Speed Switch (Max $t_{rr}$ < 0.3 μs), **CS**—High Conductance, High Speed Switch, **MS**—Medium Speed Switch, **PA**—Parametric Amplifier, **SP**—Special Purpose.

†Original device is a clipper; requires a pair of units for adequate replacement.

## TUNNEL DIODES INDEX

1N2927 — 1N3720

| TYPE | MATERIAL | $I_P$ (mA) | $I_P/I_V$ | $V_P$ (mV) | C $C_J$* (pF) | f (GHz) |
|---|---|---|---|---|---|---|
| 1N2927 | S | 0.10 | 2.5 | 75 | 80 | |
| 1N2927A | S | 0.10 | 3.2 | 70 | 80 | |
| 1N2928 | S | 0.47 | 2.5 | 80 | 100 | |
| 1N2928A | S | 0.47 | 3.2 | 74 | 100 | |
| 1N2929 | S | 1.0 | 2.5 | 80 | 150 | |
| 1N2929A | S | 1.0 | 3.2 | 75 | 150 | |
| 1N2930 | S | 4.7 | 2.5 | 85 | 250 | |
| 1N2930A | S | 4.7 | 3.2 | 79 | 250 | |
| 1N2931 | S | 10 | 2.5 | 85 | 400 | |
| 1N2931A | S | 10 | 3.2 | 80 | 400 | |
| 1N2932 | S | 22 | 2.5 | 90 | 1200 | |
| 1N2932A | S | 22 | 3.2 | 82 | 1200 | |
| 1N2933 | S | 47 | 2.5 | 90 | 1800 | |
| 1N2933A | S | 47 | 3.2 | 83 | 1800 | |
| 1N2934 | S | 100 | 2.5 | 90 | 2500 | |
| 1N2934A | S | 100 | 3.2 | 85 | 2500 | |
| 1N2939 | G | 1.0 | 10 | 65 | 15 | 2.2 |
| 1N2939A | G | 1.0 | 7.0 | 60 | 10 | |
| 1N2940 | G | 1.0 | 7.7 | 65 | 10 | 2.2 |
| 1N2940A | G | 1.0 | 4.4 | 65 | 7.0 | |
| 1N2941 | G | 4.7 | 7.9 | 65 | 50 | 2.6 |
| 1N2941A | G | 4.7 | 4.4 | 65 | 30 | |
| 1N2969 | G | 2.2 | 7.6 | 65 | 25 | 2.5 |
| 1N2969A | G | 2.2 | 4.5 | 65 | 15 | |
| 1N3113 | GA | 1.0 | 10 | | 10 | |
| 1N3114 | GA | 2.2 | 10 | | 10 | |
| 1N3115 | GA | 2.2 | 10 | | 10 | |
| 1N3116 | GA | 4.7 | 10 | | 15 | |
| 1N3117 | GA | 4.7 | 9.0 | | 15 | |
| 1N3118 | GA | 10 | 10 | 160 | 20* | |
| 1N3119 | GA | 10 | | | 20 | |
| 1N3120 | GA | 22 | 10 | | | |
| 1N3128 | G | 5.0 | 8.0 | 65 | 15 | |
| 1N3129 | G | 20 | 8.0 | 90 | 20 | |
| 1N3130 | G | 50 | 8.0 | 120 | 25 | |
| 1N3138 | GA | 50 | 13 | 260 | 30 | |
| 1N3149 | G | 10 | 7.7 | 65 | 90 | 2.6 |
| 1N3149A | G | 10 | 4.4 | 65 | 50 | |
| 1N3150 | G | 22 | 7.6 | 65 | 125 | 2.2 |
| 1N3217 | G | 0.47 | 4.7 | | 8.0 | |
| 1N3218 | G | 1.0 | 5.0 | | 10 | |
| 1N3218A | G | 1.0 | 5.0 | | 5.0 | |
| 1N3219 | G | 2.2 | 5.0 | | 20 | |
| 1N3219A | G | 2.2 | 5.0 | | 10 | |
| 1N3220 | G | 4.7 | 4.7 | | 30 | |
| 1N3221 | G | 10 | 5.0 | 65 | 100 | 2.6 |
| 1N3221A | G | 10 | 6.0 | | 35 | |
| 1N3222 | G | 22 | 5.1 | | 150 | |
| 1N3560 | G | 1.0 | 5.0 | 55 | 20 | 1.3 |
| 1N3561 | G | 1.0 | 8.0 | 55 | 20 | 1.3 |
| 1N3562 | G | 5.0 | 6.0 | 55 | 85 | 1.3 |
| 1N3712 | G | 1.0 | 5.0 | 65 | 10 | 2.3 |
| 1N3713 | G | 1.0 | 7.0 | 65 | 5.0 | 3.2 |
| 1N3714 | G | 2.2 | 4.2 | 65 | 25* | 2.2 |
| 1N3715 | G | 2.2 | 7.0 | 65 | 10 | 3.0 |
| 1N3716 | G | 4.7 | 4.0 | 65 | 50 | 1.8 |
| 1N3717 | G | 4.7 | 7.6 | 65 | 25 | 3.4 |
| 1N3718 | G | 10 | 4.1 | 65 | 90 | 1.6 |
| 1N3719 | G | 10 | 7.0 | 65 | 50 | |
| 1N3720 | G | 22 | 4.2 | 65 | 150 | 1.6 |