

- 1N4565A-1 THRU 1N4584A-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/452
- 6.4 VOLT NOMINAL ZENER VOLTAGE $\pm 5\%$
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- METALLURGICALLY BONDED

1N4565 thru 1N4584A
and
1N4565A-1 thru 1N4584A-1

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
DC Power Dissipation: 500mW @ +50°C
Power Derating: 4 mW / °C above +50°C

REVERSE LEAKAGE CURRENT

$I_R = 2\mu A$ @ 25°C & $V_R = 3V_{dc}$

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

| JEDEC TYPE NUMBER | ZENER TEST CURRENT | EFFECTIVE TEMPERATURE COEFFICIENT | VOLTAGE TEMPERATURE STABILITY (ΔV_{ZT} MAX) (Note 1) | TEMPERATURE RANGE | MAX. DYNAMIC ZENER IMPEDANCE (Note 2) |
|-------------------|--------------------|-----------------------------------|---|-----------------------------|---------------------------------------|
| | mA | | | | |
| 1N4565 1N4565A | .5 .5 | .01 .01 | 48 100 | 0 to +75°C -55 to +100°C | 200 200 |
| 1N4566 1N4566A | .5 .5 | .005 .005 | 24 50 | 0 to +75°C -55 to +100°C | 200 200 |
| 1N4567 1N4567A | .5 .5 | .002 .002 | 10 20 | 0 to +75°C -55 to +100°C | 200 200 |
| 1N4568 1N4568A | .5 .5 | .001 .001 | 5 10 | 0 to +75°C -55 to +100°C | 200 200 |
| 1N4569 1N4569A | .5 .5 | .0005 .0005 | 2.5 5 | 0 to +75°C -55 to +100°C | 200 200 |
| 1N4570 1N4570A | 1.0 1.0 | .01 .01 | 48 100 | 0 to +75°C -55 to +100°C | 100 100 |
| 1N4571 1N4571A | 1.0 1.0 | .005 .005 | 24 50 | 0 to +75°C -55 to +100°C | 100 100 |
| 1N4572 1N4572A | 1.0 1.0 | .002 .002 | 10 20 | 0 to +75°C -55 to +100°C | 100 100 |
| 1N4573 1N4573A | 1.0 1.0 | .001 .001 | 5 10 | 0 to +75°C -55 to +100°C | 100 100 |
| 1N4574 1N4574A | 1.0 1.0 | .0005 .0005 | 2.5 5 | 0 to +75°C -55 to +100°C | 100 100 |
| 1N4575 1N4575A | 2.0 2.0 | .01 .01 | 48 100 | 0 to +75°C -55 to +100°C | 50 50 |
| 1N4576 1N4576A | 2.0 2.0 | .005 .005 | 24 50 | 0 to +75°C -55 to +100°C | 50 50 |
| 1N4577 1N4577A | 2.0 2.0 | .002 .002 | 10 20 | 0 to +75°C -55 to +100°C | 50 50 |
| 1N4578 1N4578A | 2.0 2.0 | .001 .001 | 5 10 | 0 to +75°C -55 to +100°C | 50 50 |
| 1N4579 1N4579A | 2.0 2.0 | .0005 .0005 | 2.5 5 | 0 to +75°C -55 to +100°C | 50 50 |
| 1N4580 1N4580A | 4.0 4.0 | .01 .01 | 48 100 | 0 to +75°C -55 to +100°C | 25 25 |
| 1N4581 1N4581A | 4.0 4.0 | .005 .005 | 24 50 | 0 to +75°C -55 to +100°C | 25 25 |
| 1N4582 1N4582A | 4.0 4.0 | .002 .002 | 10 20 | 0 to +75°C -55 to +100°C | 25 25 |
| 1N4583 1N4583A | 4.0 4.0 | .001 .001 | 5 10 | 0 to +75°C -55 to +100°C | 25 25 |
| 1N4584 1N4584A | 4.0 4.0 | .0005 .0005 | 2.5 5 | 0 to +75°C -55 to +100°C | 25 25 |

NOTE 1 The maximum allowable change observed over the entire temperature range i.e., the diode voltage will not exceed the specified mV at any discrete temperature between the established limits, per JEDEC standard No.5.

NOTE 2 Zener impedance is derived by superimposing on I_{ZT} A 60Hz rms a.c. current equal to 10% of I_{ZT} .

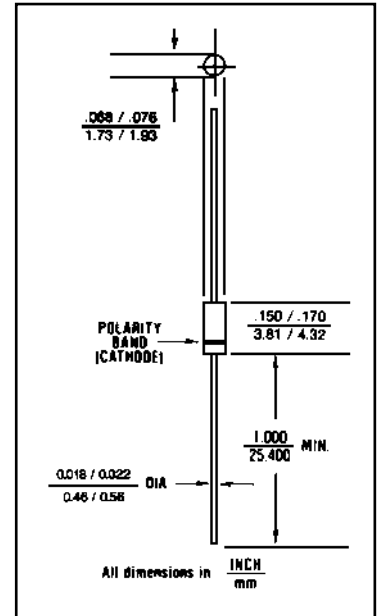


FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case. DO – 35 outline.

LEAD MATERIAL: Copper clad steel.

LEAD FINISH: Tin / Lead

POLARITY: Diode to be operated with the banded (cathode) end positive.

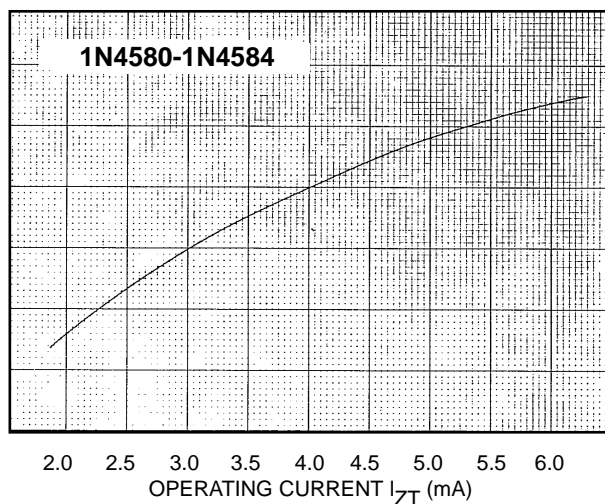
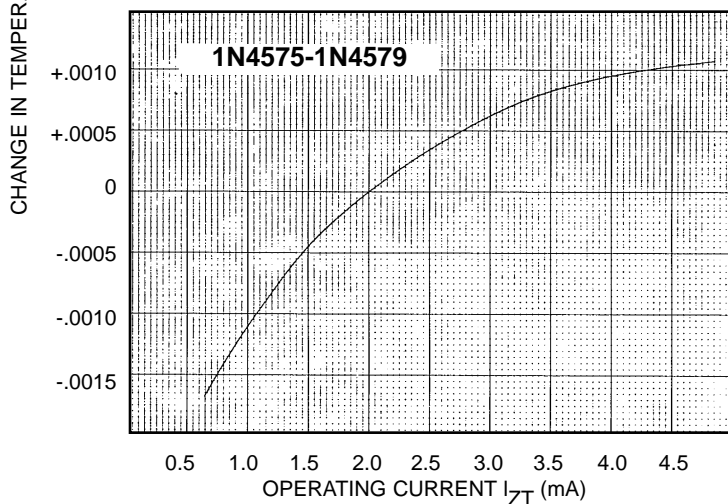
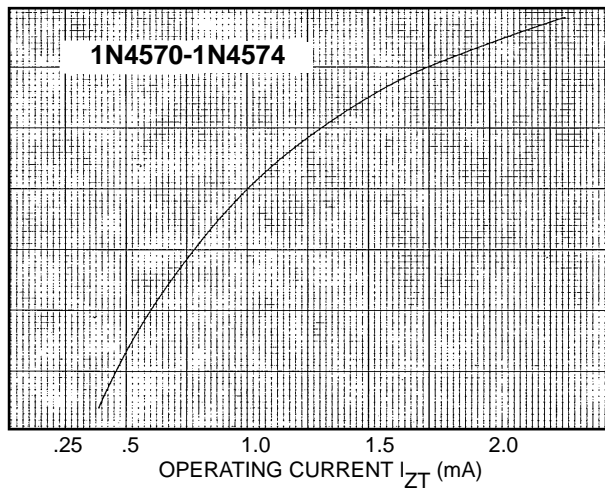
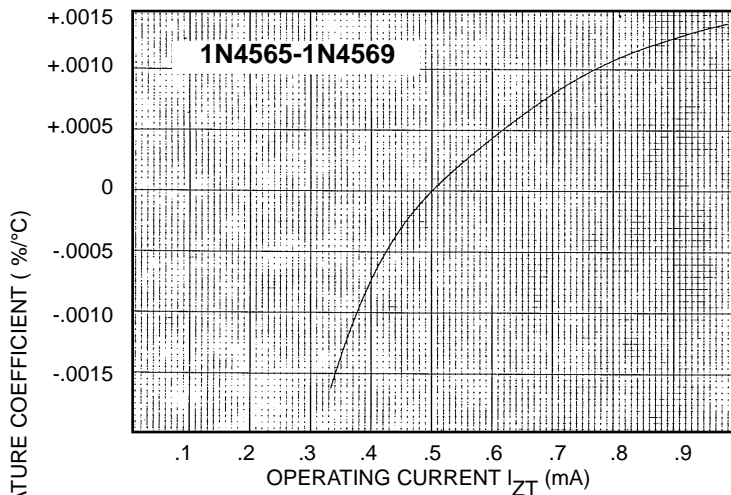
MOUNTING POSITION: ANY.



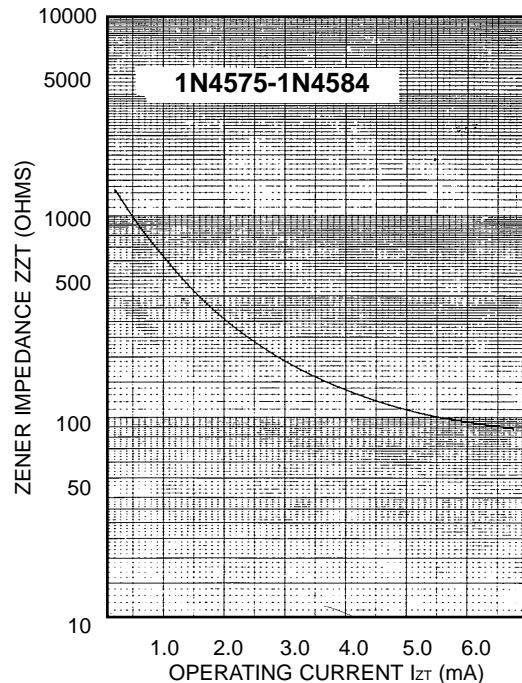
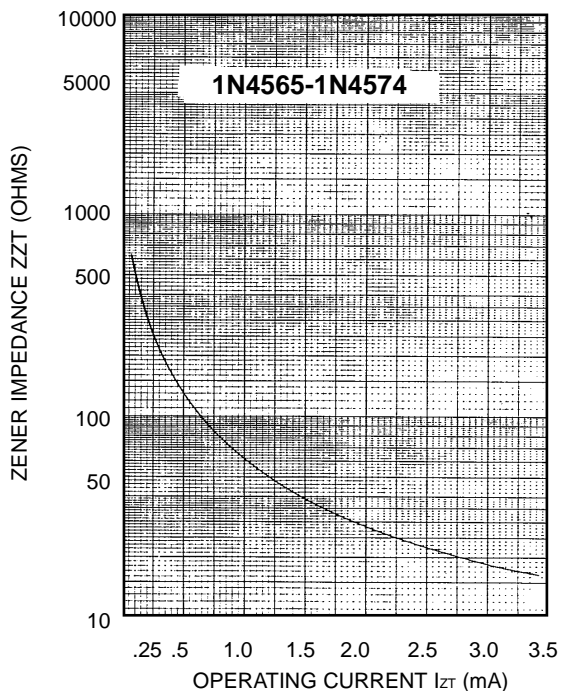
COMPENSATED DEVICES INCORPORATED

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1N4565 thru 1N4584A INCLUDING -1 VERSIONS



TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT



ZENER IMPEDANCE VS. OPERATING CURRENT