

Temperature Compensated Zener Reference Diode Series

1N4565 thru 1N4584A, 1N4565A-1 thru 1N4584A-1



Features

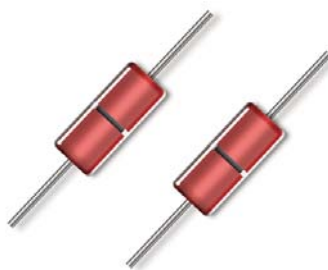
- Available in JAN, JANTX, JANTXV and JANS per MIL-PRF-19500/452
- 6.4 Volt Nominal Zener Voltage $\pm 5\%$
- Metallurgically Bonded

Maximum Ratings

Operating & Storage Temperature: -65°C to $+175^{\circ}\text{C}$

DC Power Dissipation: 500mW @ $+50^{\circ}\text{C}$

Power Derating: 4 mW / $^{\circ}\text{C}$ above $+50^{\circ}\text{C}$



REVERSE LEAKAGE CURRENT

$$I_R = 2 \mu\text{A} @ 25^{\circ}\text{C} \ \& \ V_R = 3 \text{Vdc}$$

Electrical Specifications @ $+25^{\circ}\text{C}$ (Unless Otherwise Specified)

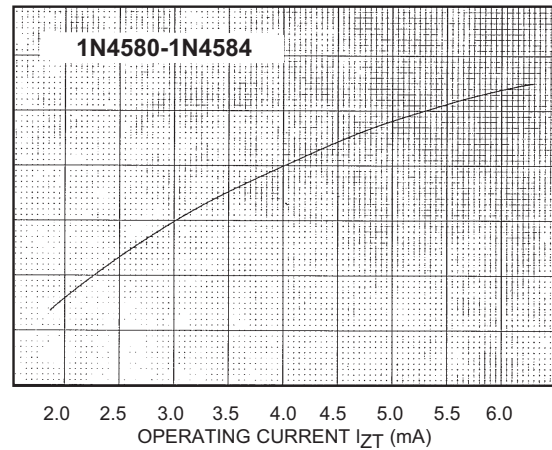
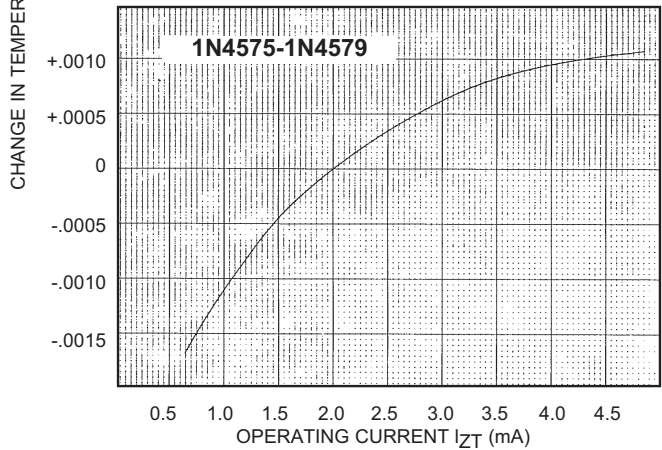
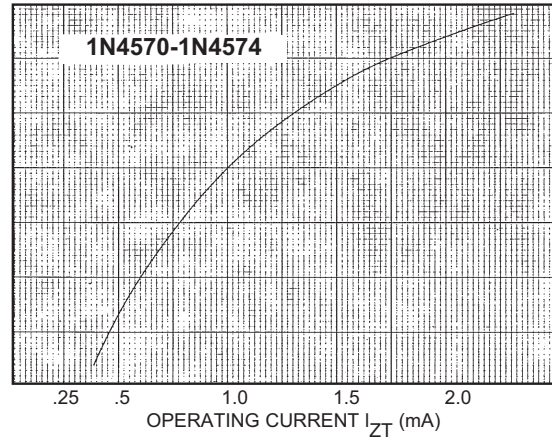
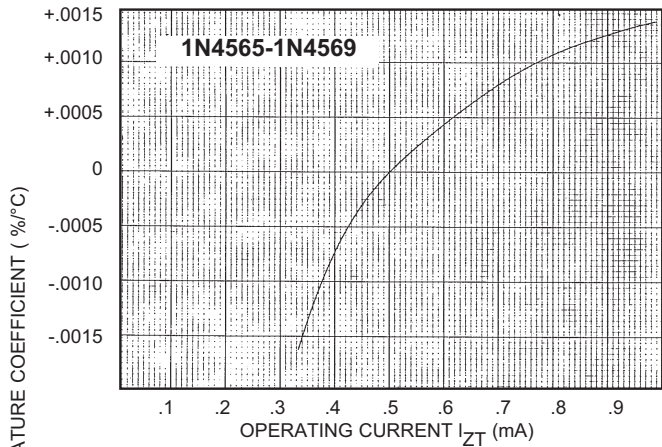
| JEDEC Type Number | Zener Test Current | Effective Temperature Coefficient | Voltage Temperature Stability ($^3V_{ZT}$ maximum) (Note 1) | Temperature Range | Maximum Dynamic Zener Impedance (Note 2) |
|-------------------|--------------------|-----------------------------------|--|---------------------------------|--|
| | mA | %/ $^{\circ}\text{C}$ | mV | $^{\circ}\text{C}$ | Ohms |
| 1N4565-1 | 0.5 | 0.01 | 48 | 0 to $+75^{\circ}\text{C}$ | 200 |
| 1N4565A-1 | 0.5 | 0.01 | 100 | -55 to $+100^{\circ}\text{C}$ | 200 |
| 1N4566-1 | 0.5 | 0.005 | 24 | 0 to $+75^{\circ}\text{C}$ | 200 |
| 1N4566A-1 | 0.5 | 0.005 | 50 | -55 to $+100^{\circ}\text{C}$ | 200 |
| 1N4567-1 | 0.5 | 0.002 | 10 | 0 to $+75^{\circ}\text{C}$ | 200 |
| 1N4567A-1 | 0.5 | 0.002 | 20 | -55 to $+100^{\circ}\text{C}$ | 200 |
| 1N4568-1 | 0.5 | 0.001 | 5 | 0 to $+75^{\circ}\text{C}$ | 200 |
| 1N4568A-1 | 0.5 | 0.001 | 10 | -55 to $+100^{\circ}\text{C}$ | 200 |
| 1N4569-1 | 0.5 | 0.0005 | 2.5 | 0 to $+75^{\circ}\text{C}$ | 200 |
| 1N4569A-1 | 0.5 | 0.0005 | 5 | -55 to $+100^{\circ}\text{C}$ | 200 |
| 1N4570-1 | 1.0 | 0.01 | 48 | 0 to $+75^{\circ}\text{C}$ | 100 |
| 1N4570A-1 | 1.0 | 0.01 | 100 | -55 to $+100^{\circ}\text{C}$ | 100 |
| 1N4571-1 | 1.0 | 0.005 | 24 | 0 to $+75^{\circ}\text{C}$ | 100 |
| 1N4571A-1 | 1.0 | 0.005 | 50 | -55 to $+100^{\circ}\text{C}$ | 100 |
| 1N4572-1 | 1.0 | 0.002 | 10 | 0 to $+75^{\circ}\text{C}$ | 100 |
| 1N4572A-1 | 1.0 | 0.002 | 20 | -55 to $+100^{\circ}\text{C}$ | 100 |
| 1N4573, -1 | 1.0 | 0.001 | 5 | 0 to $+75^{\circ}\text{C}$ | 100 |
| 1N4573A, -1 | 1.0 | 0.001 | 10 | -55 to $+100^{\circ}\text{C}$ | 100 |
| 1N4574-1 | 1.0 | 0.0005 | 2.5 | 0 to $+75^{\circ}\text{C}$ | 100 |
| 1N4574A-1 | 1.0 | 0.0005 | 5 | -55 to $+100^{\circ}\text{C}$ | 100 |
| 1N4575-1 | 2.0 | 0.01 | 48 | 0 to $+75^{\circ}\text{C}$ | 50 |
| 1N4575A-1 | 2.0 | 0.01 | 100 | -55 to $+100^{\circ}\text{C}$ | 50 |
| 1N4576-1 | 2.0 | 0.005 | 24 | 0 to $+75^{\circ}\text{C}$ | 50 |
| 1N4576A-1 | 2.0 | 0.005 | 50 | -55 to $+100^{\circ}\text{C}$ | 50 |
| 1N4577-1 | 2.0 | 0.002 | 10 | 0 to $+75^{\circ}\text{C}$ | 50 |
| 1N4577A-1 | 2.0 | 0.002 | 20 | -55 to $+100^{\circ}\text{C}$ | 50 |
| 1N4578-1 | 2.0 | 0.001 | 5 | 0 to $+75^{\circ}\text{C}$ | 50 |
| 1N4578A-1 | 2.0 | 0.001 | 10 | -55 to $+100^{\circ}\text{C}$ | 50 |
| 1N4579-1 | 2.0 | 0.0005 | 2.5 | 0 to $+75^{\circ}\text{C}$ | 50 |
| 1N4579A-1 | 2.0 | 0.0005 | 5 | -55 to $+100^{\circ}\text{C}$ | 50 |
| 1N4580-1 | 4.0 | 0.01 | 48 | 0 to $+75^{\circ}\text{C}$ | 25 |
| 1N4580A-1 | 4.0 | 0.01 | 100 | -55 to $+100^{\circ}\text{C}$ | 25 |
| 1N4581-1 | 4.0 | 0.005 | 24 | 0 to $+75^{\circ}\text{C}$ | 25 |
| 1N4581A-1 | 4.0 | 0.005 | 50 | -55 to $+100^{\circ}\text{C}$ | 25 |
| 1N4582-1 | 4.0 | 0.002 | 10 | 0 to $+75^{\circ}\text{C}$ | 25 |
| 1N4582A-1 | 4.0 | 0.002 | 20 | -55 to $+100^{\circ}\text{C}$ | 25 |
| 1N4583-1 | 4.0 | 0.001 | 5 | 0 to $+75^{\circ}\text{C}$ | 25 |
| 1N4583A-1 | 4.0 | 0.001 | 10 | -55 to $+100^{\circ}\text{C}$ | 25 |
| 1N4584-1 | 4.0 | 0.0005 | 2.5 | 0 to $+75^{\circ}\text{C}$ | 25 |
| 1N4584A-1 | 4.0 | 0.0005 | 5 | -55 to $+100^{\circ}\text{C}$ | 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.

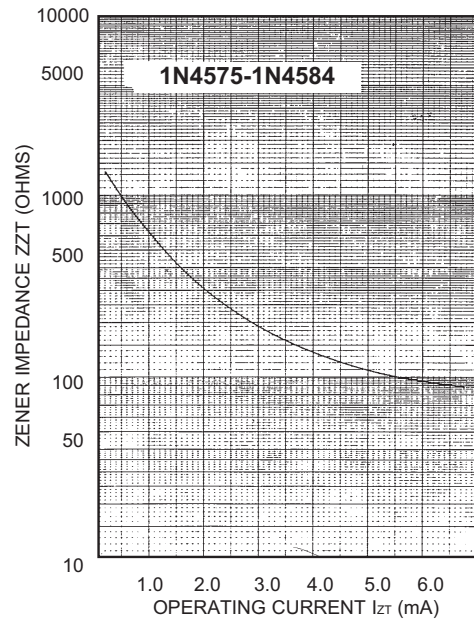
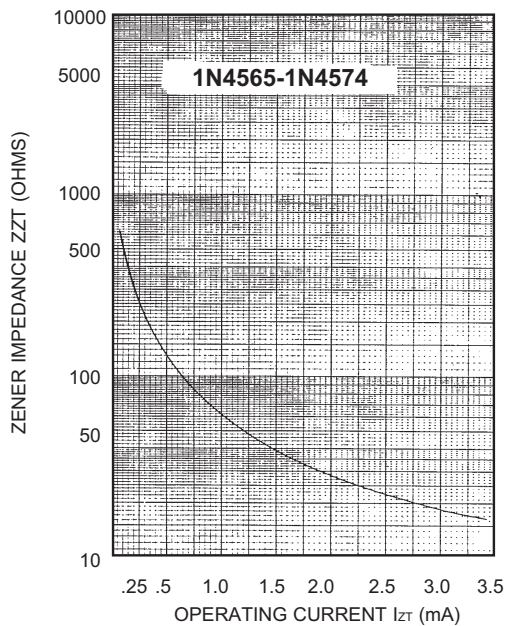
NOTE 2: Zener impedance is derived by superimposing on I_{ZT} A 60Hz rms a.c. current equal to 10% of I_{ZT} .



Graphs

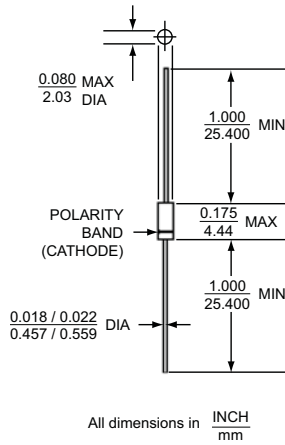


TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT



ZENER IMPEDANCE VS. OPERATING CURRENT

Outline Drawing



LEADED DESIGN DATA

CASE: Hermetically sealed, DO – 35

LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin / Lead

POLARITY: Cathode end is banded.

MOUNTING POSITION: Any

Aeroflex / Metelics, Inc.

975 Stewart Drive,
Sunnyvale, CA 94085
Tel: (408) 737-8181
Fax: (408) 733-7645

Sales: 888-641-SEMI (7364)

Hi-Rel Components

9 Hampshire Street,
Lawrence, MA 01840
Tel: (603) 641-3800
Fax: (978) 683-3264

www.aeroflex.com/metelics-hirelcomponents

www.aeroflex.com/metelics metelics-sales@aeroflex.com

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