

1N4565-1 thru 1N4584-1 & 1N4565A-1 thru 1N4584A-1

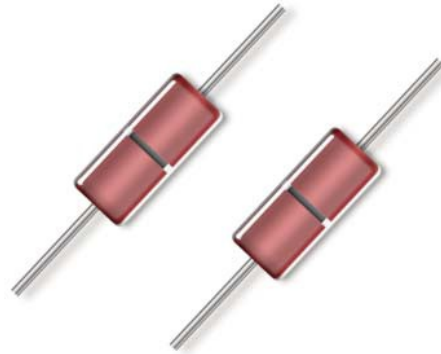


Temperature Compensated Zener Reference Diode Series

Rev. V1

Features

- Available in JAN, JANTX, JANTXV and JANS per MIL-PRF-19500/452
- 6.4 V Nominal Zener Voltage $\pm 5\%$
- 500 mW Power Handling
- Axial-leaded Glass DO-35 Style Package
- Also Available in a Hermetically sealed MELF DO-213AA package



Electrical Specifications:

$I_R = 2 \mu A$ @ $+25^\circ C$ & $V_R = 3 V_{dc}$, $T_A = +25^\circ C$ (unless otherwise specified)

| JEDEC Type # | Zener Test Current I_{ZT} | Effective Temperature Coefficient | Voltage Temperature Stability ΔV_{ZT} max. ¹ | Temperature Range | Maximum Dynamic Zener Impedance ² |
|-----------------------|-----------------------------|-----------------------------------|---|-------------------------|--|
| | mA | %/ $^\circ C$ | mV | $^\circ C$ | Ω |
| 1N4565-1 1N4565A-1 | 0.5 | 0.01 | 48 100 | 0 to +75 -55 to +100 | 200 |
| 1N4566-1 1N4566A-1 | 0.5 | 0.005 | 24 50 | 0 to +75 -55 to +100 | 200 |
| 1N4567-1 1N4567A-1 | 0.5 | 0.002 | 10 20 | 0 to +75 -55 to +100 | 200 |
| 1N4568-1 1N4568A-1 | 0.5 | 0.001 | 5 10 | 0 to +75 -55 to +100 | 200 |
| 1N4569-1 1N4569A-1 | 0.5 | 0.0005 | 2.5 5.0 | 0 to +75 -55 to +100 | 200 |
| 1N4570-1 1N4570A-1 | 1.0 | 0.01 | 48 100 | 0 to +75 -55 to +100 | 100 |
| 1N4571-1 1N4571A-1 | 1.0 | 0.005 | 24 50 | 0 to +75 -55 to +100 | 100 |
| 1N4572-1 1N4572A-1 | 1.0 | 0.002 | 10 20 | 0 to +75 -55 to +100 | 100 |
| 1N4573-1 1N4573A-1 | 1.0 | 0.001 | 5 10 | 0 to +75 -55 to +100 | 100 |
| 1N4574-1 1N4574A-1 | 1.0 | 0.0005 | 2.5 5.0 | 0 to +75 -55 to +100 | 100 |
| 1N4575-1 1N4575A-1 | 2.0 | 0.01 | 48 100 | 0 to +75 -55 to +100 | 50 |
| 1N4576-1 1N4576A-1 | 2.0 | 0.005 | 24 50 | 0 to +75 -55 to +100 | 50 |

(Continued next page)

1N4565-1 thru 1N4584-1 & 1N4565A-1 thru 1N4584A-1



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| JEDEC Type # | Zener Test Current I_{ZT} | Effective Temperature Coefficient | Voltage Temperature Stability ΔV_{ZT} max. ¹ | Temperature Range | Maximum Dynamic Zener Impedance ² |
|-----------------------|-----------------------------|-----------------------------------|---|-------------------------|--|
| | mA | %/°C | mV | °C | Ω |
| 1N4577-1 1N4577A-1 | 2.0 | 0.002 | 10 20 | 0 to +75 -55 to +100 | 50 |
| 1N4578-1 1N4578A-1 | 2.0 | 0.001 | 5 10 | 0 to +75 -55 to +100 | 50 |
| 1N4579-1 1N4579A-1 | 2.0 | 0.0005 | 2.5 5.0 | 0 to +75 -55 to +100 | 50 |
| 1N4580-1 1N4580A-1 | 4.0 | 0.01 | 48 100 | 0 to +75 -55 to +100 | 25 |
| 1N4581-1 1N4581A-1 | 4.0 | 0.005 | 24 50 | 0 to +75 -55 to +100 | 25 |
| 1N4582-1 1N4582A-1 | 4.0 | 0.002 | 10 20 | 0 to +75 -55 to +100 | 25 |
| 1N4583-1 1N4583A-1 | 4.0 | 0.001 | 5 10 | 0 to +75 -55 to +100 | 25 |
| 1N4584-1 1N4584A-1 | 4.0 | 0.0005 | 2.5 5.0 | 0 to +75 -55 to +100 | 25 |

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

Absolute Maximum Ratings

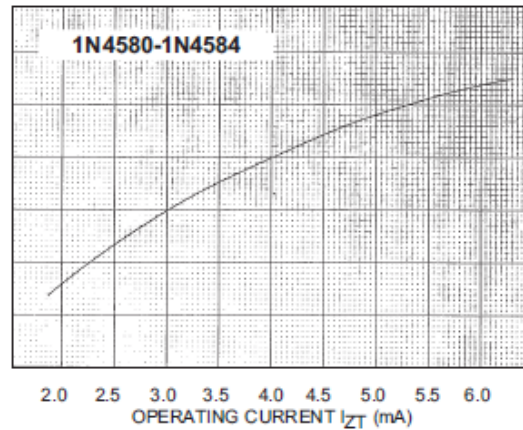
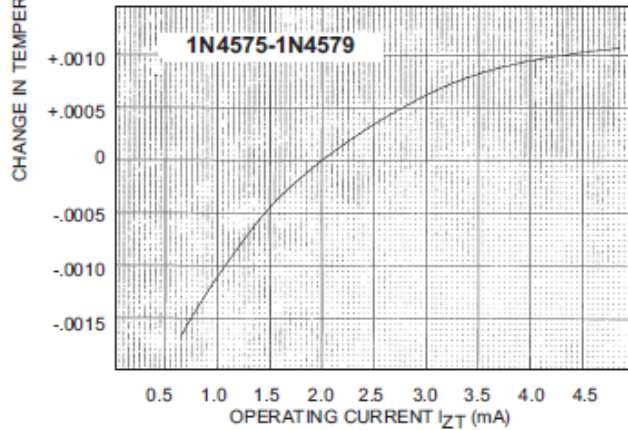
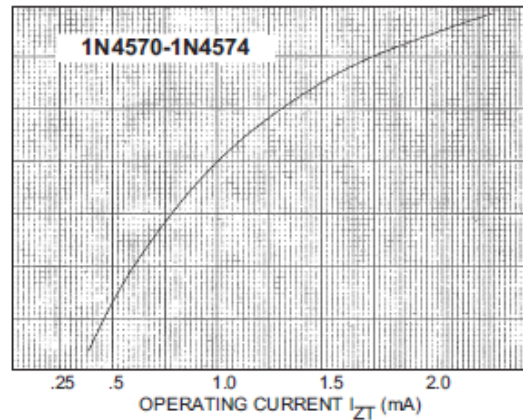
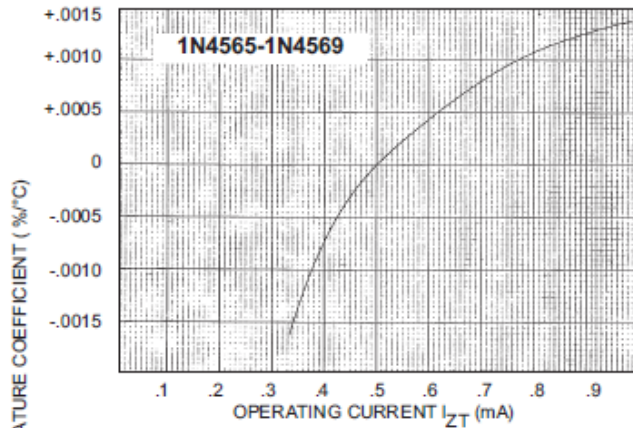
| Parameter | Absolute Maximum |
|---------------------------------|---------------------------------|
| DC Power Dissipation | 500 mW @ $+50^\circ C$ |
| Power Derating | 4 mW/°C above $+50^\circ C$ |
| Operating & Storage Temperature | $-65^\circ C$ to $+175^\circ C$ |

1N4565-1 thru 1N4584-1 & 1N4565A-1 thru 1N4584A-1

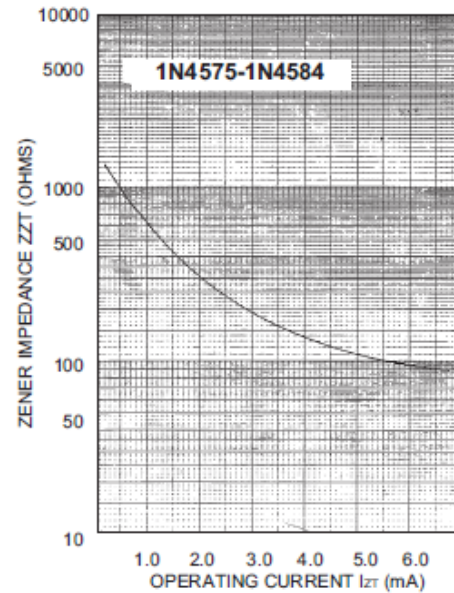
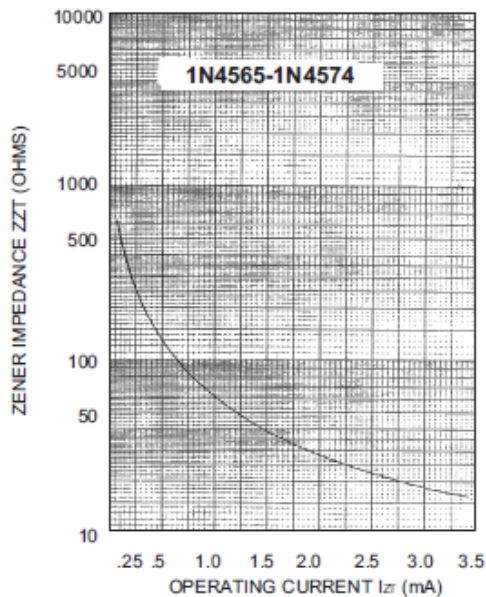


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TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT



ZENER IMPEDANCE VS. OPERATING CURRENT

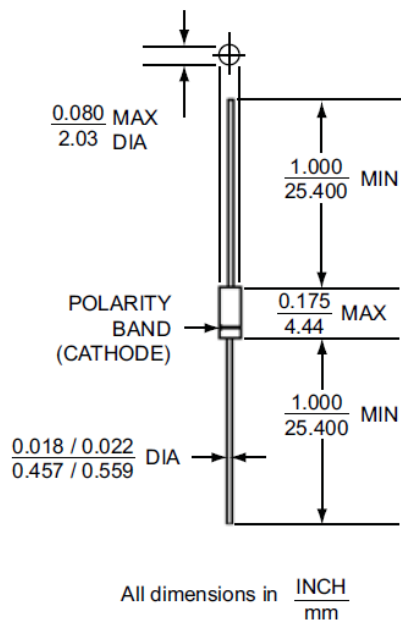
1N4565-1 thru 1N4584-1 & 1N4565A-1 thru 1N4584A-1



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Outline



Leaded Design Data

Case: DO-35, Hermetically sealed

Lead Material: Copper Clad Steel

Lead Finish: Tin / Lead

Polarity: Cathode end is banded.

Mounting Position: Any.

1N4565-1 thru 1N4584-1 & 1N4565A-1 thru 1N4584A-1



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