

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

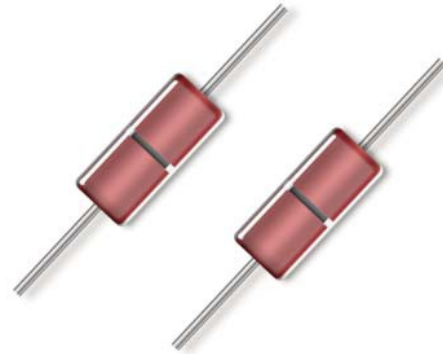


## Temperature Compensated Zener Reference Diode Series

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 $\Delta V_{ZT}$ max. <sup>1</sup>	Temperature Range	Maximum Dynamic Zener Impedance <sup>2</sup>
	mA	%/ $^\circ C$	mV	$^\circ C$	$\Omega$
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

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### Electrical Specifications:

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

JEDEC Type #	Zener Test Current $I_{ZT}$	Effective Temperature Coefficient	Voltage Temperature Stability $\Delta V_{ZT} \text{ max.}^1$	Temperature Range	Maximum Dynamic Zener Impedance <sup>2</sup>
	mA	%/°C	mV	°C	$\Omega$
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

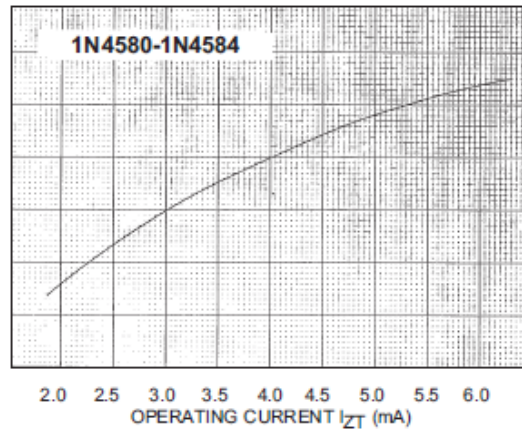
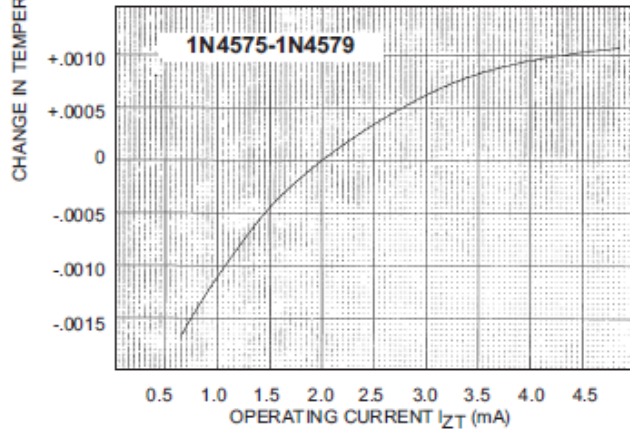
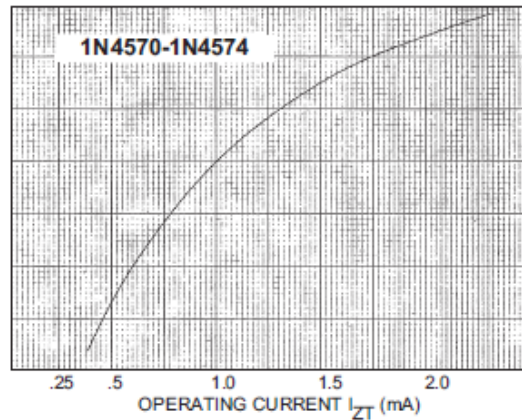
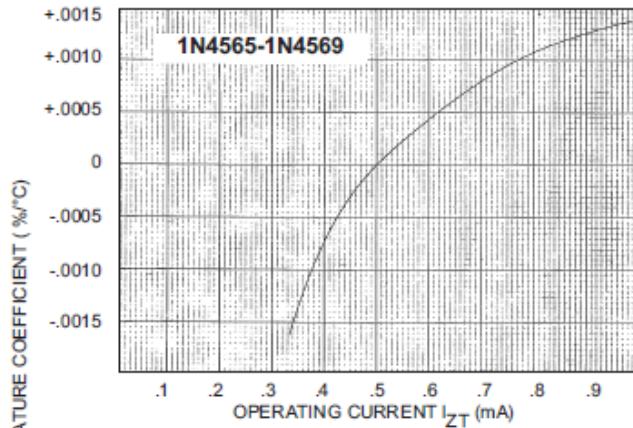
Parameter	Absolute Maximum
DC Power Dissipation	500 mW @ $+50^\circ\text{C}$
Power Derating	4 mW/°C above $+50^\circ\text{C}$
Operating & Storage Temperature	$-65^\circ\text{C}$ to $+175^\circ\text{C}$

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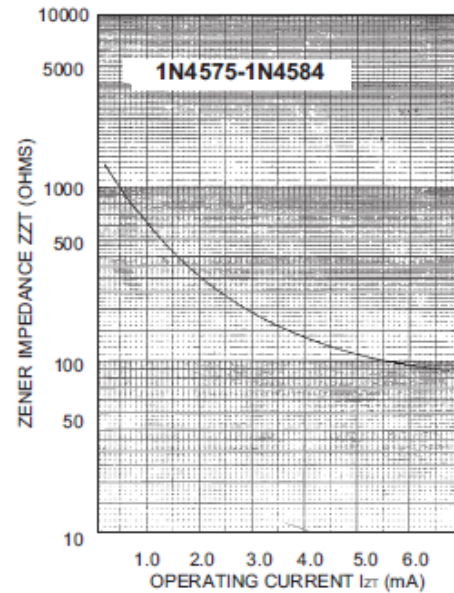
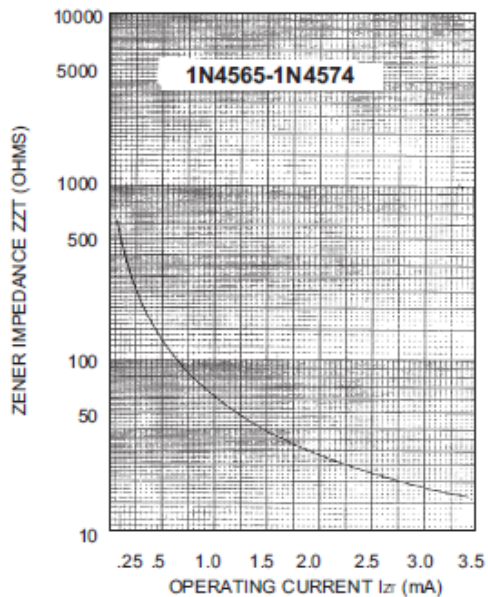


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### TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT



### ZENER IMPEDANCE VS. OPERATING CURRENT

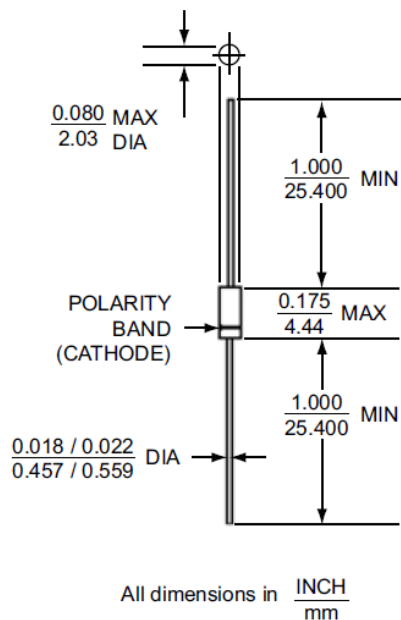
# 1N4565-1 thru 1N4584-1 & 1N4565A-1 thru 1N4584A-1



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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.

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