



**Microsemi Corp.**  
the diode experts



**1N4565, A, -1  
thru  
1N4584, A, -1  
DO-7**

SCOTTSDALE, AZ  
For more information call:  
(602) 941-6300

## FEATURES

- $6.4 \text{ V} \pm 5\%$  ZENER VOLTAGE (NOTE 1)
- TEMPERATURE COEFFICIENT RANGE:  $0.01\%/^{\circ}\text{C}$  TO  $0.0005\%/^{\circ}\text{C}$
- ZENER TEST CURRENT RANGE:  $500\mu\text{A}$  TO  $4\text{mA}$
- 1N4565A THRU 1N4574A HAVE JAN, JANTX, JANTXV, JANS, AND -1 QUALIFICATIONS TO MIL-S-19500/452
- RADIATION HARDENED DEVICES AVAILABLE (SEE NOTE 4)
- ALSO AVAILABLE IN DO-35 PACKAGE WITH JAN, JANTX, JANTXV-1 QUALIFICATIONS

## MAXIMUM RATINGS

Power Dissipation:  $475 \text{ mW}$ , at  $25^{\circ}\text{C}$   
derate  $3.16 \text{ mW}/^{\circ}\text{C}$  above  $25^{\circ}\text{C}$   
Operating and Storage Temperature:  $-65$  to  $+175^{\circ}\text{C}$

## \* ELECTRICAL CHARACTERISTICS @ $25^{\circ}\text{C}$ , unless otherwise specified

| JEDEC TYPE NO. | NOTE 3) ZENER TEST CURRENT mA | MAXIMUM VOLTAGE<br>$\alpha_{VZ} \pm \%/^{\circ}\text{C}$ | TEMPERATURE COEFFICIENT<br>$\pm \text{mV}/^{\circ}\text{C}$ | TEMP. RANGE                     | MAX. DYNAMIC ZENER IMPEDANCE OHMS (Note 2) |
|----------------|-------------------------------|----------------------------------------------------------|-------------------------------------------------------------|---------------------------------|--------------------------------------------|
| 1N4565         | .5                            | .01                                                      | .64                                                         | 0 to $+75^{\circ}\text{C}$      | 200                                        |
| 1N4565A        | .5                            | .01                                                      | .64                                                         | $-55$ to $+100^{\circ}\text{C}$ | 200                                        |
| 1N4566         | .5                            | .005                                                     | .32                                                         | 0 to $+75^{\circ}\text{C}$      | 200                                        |
| 1N4566A        | .5                            | .005                                                     | .32                                                         | $-55$ to $+100^{\circ}\text{C}$ | 200                                        |
| 1N4567         | .5                            | .002                                                     | .13                                                         | 0 to $+75^{\circ}\text{C}$      | 200                                        |
| 1N4567A        | .5                            | .002                                                     | .13                                                         | $-55$ to $+100^{\circ}\text{C}$ | 200                                        |
| 1N4568         | .5                            | .001                                                     | .06                                                         | 0 to $+75^{\circ}\text{C}$      | 200                                        |
| 1N4568A        | .5                            | .001                                                     | .06                                                         | $-55$ to $+100^{\circ}\text{C}$ | 200                                        |
| 1N4569         | .5                            | .0005                                                    | .03                                                         | 0 to $+75^{\circ}\text{C}$      | 200                                        |
| 1N4569A        | .5                            | .0005                                                    | .03                                                         | $-55$ to $+100^{\circ}\text{C}$ | 200                                        |
| 1N4570         | 1.0                           | .01                                                      | .64                                                         | 0 to $+75^{\circ}\text{C}$      | 100                                        |
| 1N4570A        | 1.0                           | .01                                                      | .64                                                         | $-55$ to $+100^{\circ}\text{C}$ | 100                                        |
| 1N4571         | 1.0                           | .005                                                     | .32                                                         | 0 to $+75^{\circ}\text{C}$      | 100                                        |
| 1N4571A        | 1.0                           | .005                                                     | .32                                                         | $-55$ to $+100^{\circ}\text{C}$ | 100                                        |
| 1N4572         | 1.0                           | .002                                                     | .13                                                         | 0 to $+75^{\circ}\text{C}$      | 100                                        |
| 1N4572A        | 1.0                           | .002                                                     | .13                                                         | $-55$ to $+100^{\circ}\text{C}$ | 100                                        |
| 1N4573         | 1.0                           | .001                                                     | .06                                                         | 0 to $+75^{\circ}\text{C}$      | 100                                        |
| 1N4573A        | 1.0                           | .001                                                     | .06                                                         | $-55$ to $+100^{\circ}\text{C}$ | 100                                        |
| 1N4574         | 1.0                           | .0005                                                    | .03                                                         | 0 to $+75^{\circ}\text{C}$      | 100                                        |
| 1N4574A        | 1.0                           | .0005                                                    | .03                                                         | $-55$ to $+100^{\circ}\text{C}$ | 100                                        |
| 1N4575         | 2.0                           | .01                                                      | .64                                                         | 0 to $+75^{\circ}\text{C}$      | 50                                         |
| 1N4575A        | 2.0                           | .01                                                      | .64                                                         | $-55$ to $+100^{\circ}\text{C}$ | 50                                         |
| 1N4576         | 2.0                           | .005                                                     | .32                                                         | 0 to $+75^{\circ}\text{C}$      | 50                                         |
| 1N4576A        | 2.0                           | .005                                                     | .32                                                         | $-55$ to $+100^{\circ}\text{C}$ | 50                                         |
| 1N4577         | 2.0                           | .002                                                     | .13                                                         | 0 to $+75^{\circ}\text{C}$      | 50                                         |
| 1N4577A        | 2.0                           | .002                                                     | .13                                                         | $-55$ to $+100^{\circ}\text{C}$ | 50                                         |
| 1N4578         | 2.0                           | .001                                                     | .06                                                         | 0 to $+75^{\circ}\text{C}$      | 50                                         |
| 1N4578A        | 2.0                           | .001                                                     | .06                                                         | $-55$ to $+100^{\circ}\text{C}$ | 50                                         |
| 1N4579         | 2.0                           | .0005                                                    | .03                                                         | 0 to $+75^{\circ}\text{C}$      | 50                                         |
| 1N4579A        | 2.0                           | .0005                                                    | .03                                                         | $-55$ to $+100^{\circ}\text{C}$ | 50                                         |
| 1N4580         | 4.0                           | .01                                                      | .64                                                         | 0 to $+75^{\circ}\text{C}$      | 25                                         |
| 1N4580A        | 4.0                           | .01                                                      | .64                                                         | $-55$ to $+100^{\circ}\text{C}$ | 25                                         |
| 1N4581         | 4.0                           | .005                                                     | .32                                                         | 0 to $+75^{\circ}\text{C}$      | 25                                         |
| 1N4581A        | 4.0                           | .005                                                     | .32                                                         | $-55$ to $+100^{\circ}\text{C}$ | 25                                         |
| 1N4582         | 4.0                           | .002                                                     | .13                                                         | 0 to $+75^{\circ}\text{C}$      | 25                                         |
| 1N4582A        | 4.0                           | .002                                                     | .13                                                         | $-55$ to $+100^{\circ}\text{C}$ | 25                                         |
| 1N4583         | 4.0                           | .001                                                     | .06                                                         | 0 to $+75^{\circ}\text{C}$      | 25                                         |
| 1N4583A        | 4.0                           | .001                                                     | .06                                                         | $-55$ to $+100^{\circ}\text{C}$ | 25                                         |
| 1N4584         | 4.0                           | .0005                                                    | .03                                                         | 0 to $+75^{\circ}\text{C}$      | 25                                         |
| 1N4584A        | 4.0                           | .0005                                                    | .03                                                         | $-55$ to $+100^{\circ}\text{C}$ | 25                                         |

\* JEDEC Registered Data

**NOTE 1** For specific device selections above requiring tighter tolerances than  $\pm 5\%$ , inquire with factory as to nominal zener voltage available.

**NOTE 2** Measured by superimposing rms AC current equal to 10% zener test current @  $25^{\circ}\text{C}$ . The temperature coefficient of zener impedance is approx.  $+0.3\%/^{\circ}\text{C}$ .

**NOTE 3** Voltage measurements to be performed 15 seconds after application of DC current.

**NOTE 4** Designate Radiation Hardened devices with "RH" prefix instead of "1N," i.e., RH4584A.

## 6.4 VOLT TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

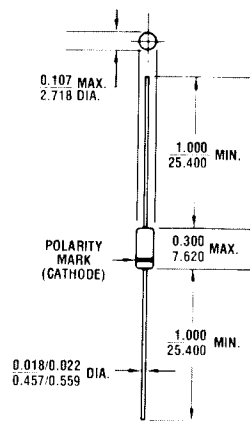


FIGURE 1

All dimensions in INCH  
m.m.

## MECHANICAL CHARACTERISTICS

CASE: Hermetically sealed glass case, DO-7.

FINISH: All external surfaces are corrosion resistant and leads solderable.

THERMAL RESISTANCE:  $300^{\circ}\text{C}/\text{W}$  (Typical) junction to lead at 0.375-inches from body.

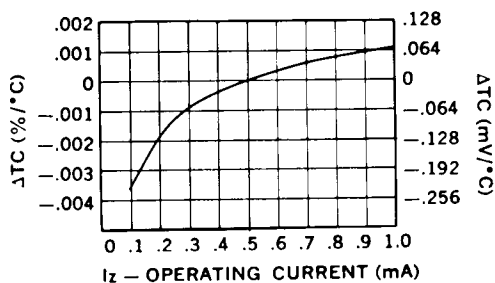
POLARITY: Diode to be operated with the banded end positive with respect to the opposite end.

WEIGHT: 0.2 grams.

MOUNTING POSITION: Any.

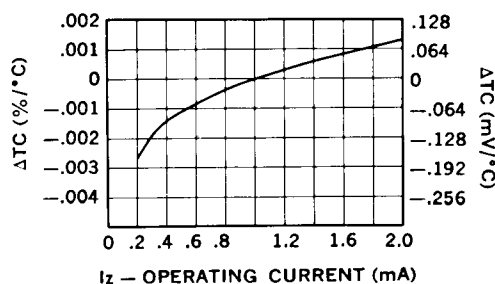
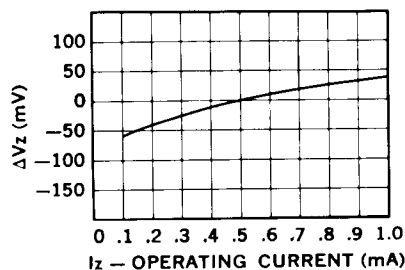
# 1N4565, A, -1 thru 1N4584, A, -1 DO-7

查询"1N4565" 1N4565  
TYPICAL CHANGE OF  
TEMPERATURE COEFFICIENT  
WITH CHANGE IN  
OPERATING CURRENT

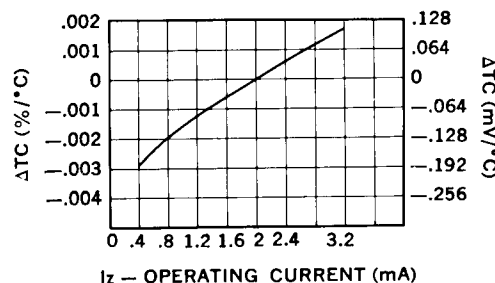
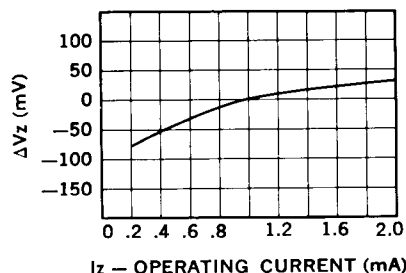


1N4565 — 1N4569A

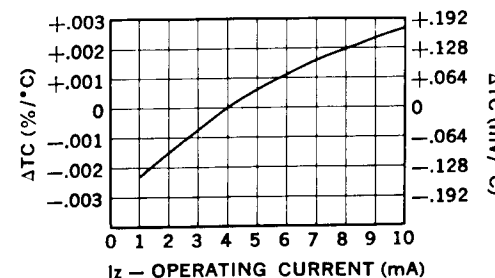
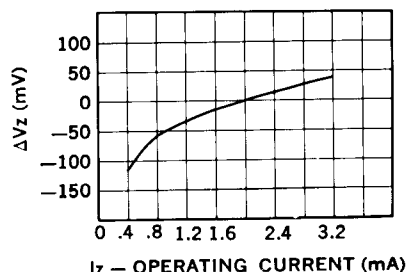
TYPICAL CHANGE  
IN ZENER VOLTAGE  
WITH CHANGE IN  
OPERATING CURRENT



1N4570 — 1N4574A



1N4575 — 1N4579A



1N4580 — 1N4584A

