



180 Lafayette Road  
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|   |      |
|---|------|
| Temperature Compensated Zener Reference Diode | RevA |
| 1N4565-1 - 1N4584-1, 1N4565A-1 - 1N4584A-1    |      |

**FEATURES**

- Metallurgically Bonded
- Hermetically Sealed
- Miniature Package
- 6.4 Volt  $\pm 5\%$  Zener Voltage



**MAXIMUM RATINGS** ( $T_A @ 25^\circ\text{C}$  unless specified otherwise)

|                                   | Conditions                                   | Limit       | Units                |
|-----------------------------------|--|-------------|----------------------|
| DC Power Dissipation              | $T_A = +50^\circ\text{C}$                    | 500         | mW                   |
| Power Derating                    | $T_A > +50^\circ\text{C}$                    | 4           | mW/ $^\circ\text{C}$ |
| Reverse Current                   | $T_A = +25^\circ\text{C}, V_R = 3\text{VDC}$ | 2           | $\mu\text{A}$        |
| Operating and Storage Temperature |  | -65 to +175 | $^\circ\text{C}$     |

**ELECTRICAL SPECIFICATIONS** ( $T_A @ 25^\circ\text{C}$  unless specified otherwise)

| Part Number           | Zener Test Current | Effective Temperature Coefficient | Voltage Temperature Stability* | Temperature Range       | Max Dynamic Zener Impedance** |
|-----------------------|--------------------|-----------------------------------|--------------------------------|-------------------------|-------------------------------|
|                       | mA                 | %/ $^\circ\text{C}$               | mV                             | $^\circ\text{C}$        | Ohms                          |
| 1N4565-1<br>1N4565A-1 | .5<br>.5           | .01<br>.01                        | 48<br>100                      | 0 TO +75<br>-55 TO +100 | 200<br>200                    |
| 1N4566-1<br>1N4566A-1 | .5<br>.5           | .005<br>.005                      | 24<br>50                       | 0 TO +75<br>-55 TO +100 | 200<br>200                    |
| 1N4567-1<br>1N4567A-1 | .5<br>.5           | .002<br>.002                      | 10<br>20                       | 0 TO +75<br>-55 TO +100 | 200<br>200                    |
| 1N4568-1<br>1N4568A-1 | .5<br>.5           | .001<br>.001                      | 5<br>10                        | 0 TO +75<br>-55 TO +100 | 200<br>200                    |
| 1N4569-1<br>1N4569A-1 | .5<br>.5           | .0005<br>.0005                    | 2.5<br>5                       | 0 TO +75<br>-55 TO +100 | 200<br>200                    |
| 1N4570-1<br>1N4570A-1 | 1.0<br>1.0         | .01<br>.01                        | 48<br>100                      | 0 TO +75<br>-55 TO +100 | 100<br>100                    |
| 1N4571-1<br>1N4571A-1 | 1.0<br>1.0         | .005<br>.005                      | 24<br>50                       | 0 TO +75<br>-55 TO +100 | 100<br>100                    |
| 1N4572-1<br>1N4572A-1 | 1.0<br>1.0         | .002<br>.002                      | 10<br>20                       | 0 TO +75<br>-55 TO +100 | 100<br>100                    |
| 1N4573-1<br>1N4573A-1 | 1.0<br>1.0         | .001<br>.001                      | 5<br>10                        | 0 TO +75<br>-55 TO +100 | 100<br>100                    |
| 1N4574-1<br>1N4574A-1 | 1.0<br>1.0         | .0005<br>.0005                    | 2.5<br>5                       | 0 TO +75<br>-55 TO +100 | 100<br>100                    |

\*The maximum allowable change observed over the entire temperature range

\*\* Zener impedance is derived by superimposing on  $I_{ZT}$  @ 60Hz rms AC current equal to 10% if  $I_{ZT}$



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**Temperature Compensated Zener Reference Diode**  
**1N4565-1 - 1N4584-1, 1N4565A-1 - 1N4584A-1** RevA

**ELECTRICAL SPECIFICATIONS** ( $T_A @ 25^\circ\text{C}$  unless specified otherwise)

| Part Number | Zener Test Current | Effective Temperature Coefficient | Voltage Temperature Stability* | Temperature Range | Max Dynamic Zener Impedance** |
|-------------|--------------------|-----------------------------------|--------------------------------|-------------------|-------------------------------|
|             | mA                 | %/ °C                             | mV                             | °C                | Ohms                          |
| 1N4575-1    | 2.0                | .01                               | 48                             | 0 TO +75          | 50                            |
| 1N4575A-1   | 2.0                | .01                               | 100                            | -55 TO +100       | 50                            |
| 1N4576-1    | 2.0                | .005                              | 24                             | 0 TO +75          | 50                            |
| 1N4576A-1   | 2.0                | .005                              | 50                             | -55 TO +100       | 50                            |
| 1N4577-1    | 2.0                | .002                              | 10                             | 0 TO +75          | 50                            |
| 1N4577A-1   | 2.0                | .002                              | 20                             | -55 TO +100       | 50                            |
| 1N4578-1    | 2.0                | .001                              | 5                              | 0 TO +75          | 50                            |
| 1N4578A-1   | 2.0                | .001                              | 10                             | -55 TO +100       | 50                            |
| 1N4579-1    | 2.0                | .0005                             | 2.5                            | 0 TO +75          | 50                            |
| 1N4579A-1   | 2.0                | .0005                             | 5                              | -55 TO +100       | 50                            |
| 1N4580-1    | 4.0                | .01                               | 48                             | 0 TO +75          | 25                            |
| 1N4580A-1   | 4.0                | .01                               | 100                            | -55 TO +100       | 25                            |
| 1N4581-1    | 4.0                | .005                              | 24                             | 0 TO +75          | 25                            |
| 1N4581A-1   | 4.0                | .005                              | 50                             | -55 TO +100       | 25                            |
| 1N4582-1    | 4.0                | .002                              | 10                             | 0 TO +75          | 25                            |
| 1N4582A-1   | 4.0                | .002                              | 20                             | -55 TO +100       | 25                            |
| 1N4583-1    | 4.0                | .001                              | 5                              | 0 TO +75          | 25                            |
| 1N4583A-1   | 4.0                | .001                              | 10                             | -55 TO +100       | 25                            |
| 1N4584-1    | 4.0                | .0005                             | 2.5                            | 0 TO +75          | 25                            |
| 1N4584A-1   | 4.0                | .0005                             | 5                              | -55 TO +100       | 25                            |

\*The maximum allowable change observed over the entire temperature range

\*\* Zener impedance is derived by superimposing on  $I_Z T @ 60\text{Hz rms AC current equal to } 10\% \text{ of } I_{ZT}$

**MECHANICAL SPECIFICATIONS**

