

- 1N4565AUR-1 THRU 1N4584AUR-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/452
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- LEADLESS PACKAGE FOR SURFACE MOUNT
- LOW CURRENT OPERATING RANGE: 0.5 TO 4.0 mA
- METALLURGICALLY BONDED, DOUBLE PLUG CONSTRUCTION

1N4565AUR-1 thru 1N4584AUR-1
and
CDLL4565 thru CDLL4584A

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +175°C
DC Power Dissipation: 500mW @ +50°C
Power Derating: 4 mW / °C above +50°C

REVERSE LEAKAGE CURRENT

IR = 2μA @ 25°C & VR = 3Vdc

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

| CDI TYPE NUMBER | ZENER TEST CURRENT I _{ZT} | EFFECTIVE TEMPERATURE COEFFICIENT | VOLTAGE TEMPERATURE STABILITY ³ V _{ZT} MAX -55° to + 100° (Note 1) | TEMPERATURE RANGE | MAX.DYNAMIC ZENER IMPEDANCE Z _{ZT} (Note 2) |
|-----------------------|------------------------------------|-----------------------------------|--|-------------------------------|--|
| | mA | %/°C | mV | °C | OHMS |
| CDLL4565 CDLL4565A | .5 .5 | .01 .01 | 48 100 | 0 to + 75°C -55 to + 100°C | 200 200 |
| CDLL4566 CDLL4566A | .5 .5 | .005 .005 | 24 50 | 0 to + 75°C -55 to + 100°C | 200 200 |
| CDLL4567 CDLL4567A | .5 .5 | .002 .002 | 10 20 | 0 to + 75°C -55 to + 100°C | 200 200 |
| CDLL4568 CDLL4568A | .5 .5 | .001 .001 | 5 10 | 0 to + 75°C -55 to + 100°C | 200 200 |
| CDLL4569 CDLL4569A | .5 .5 | .0005 .0005 | 2.5 5 | 0 to + 75°C -55 to + 100°C | 200 200 |
| CDLL4570 CDLL4570A | 1.0 1.0 | .01 .01 | 48 100 | 0 to + 75°C -55 to + 100°C | 100 100 |
| CDLL4571 CDLL4571A | 1.0 1.0 | .005 .005 | 24 50 | 0 to + 75°C -55 to + 100°C | 100 100 |
| CDLL4572 CDLL4572A | 1.0 1.0 | .002 .002 | 10 20 | 0 to + 75°C -55 to + 100°C | 100 100 |
| CDLL4573 CDLL4573A | 1.0 1.0 | .001 .001 | 5 10 | 0 to + 75°C -55 to + 100°C | 100 100 |
| CDLL4574 CDLL4574A | 1.0 1.0 | .0005 .0005 | 2.5 5 | 0 to + 75°C -55 to + 100°C | 100 100 |
| CDLL4575 CDLL4575A | 2.0 2.0 | .01 .01 | 48 100 | 0 to + 75°C -55 to + 100°C | 50 50 |
| CDLL4576 CDLL4576A | 2.0 2.0 | .005 .005 | 24 50 | 0 to + 75°C -55 to + 100°C | 50 50 |
| CDLL4577 CDLL4577A | 2.0 2.0 | .002 .002 | 10 20 | 0 to + 75°C -55 to + 100°C | 50 50 |
| CDLL4578 CDLL4578A | 2.0 2.0 | .001 .001 | 5 10 | 0 to + 75°C -55 to + 100°C | 50 50 |
| CDLL4579 CDLL4579A | 2.0 2.0 | .0005 .0005 | 2.5 5 | 0 to + 75°C -55 to + 100°C | 50 50 |
| CDLL4580 CDLL4580A | 4.0 4.0 | .01 .01 | 48 100 | 0 to + 75°C -55 to + 100°C | 25 25 |
| CDLL4581 CDLL4581A | 4.0 4.0 | .005 .005 | 24 50 | 0 to + 75°C -55 to + 100°C | 25 25 |
| CDLL4582 CDLL4582A | 4.0 4.0 | .002 .002 | 10 20 | 0 to + 75°C -55 to + 100°C | 25 25 |
| CDLL4583 CDLL4583A | 4.0 4.0 | .001 .001 | 5 10 | 0 to + 75°C -55 to + 100°C | 25 25 |
| CDLL4584 CDLL4584A | 4.0 4.0 | .0005 .0005 | 2.5 5 | 0 to + 75°C -55 to + 100°C | 25 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}.

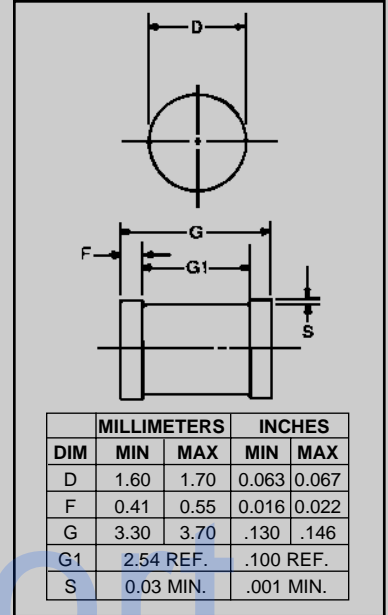


FIGURE 1

DESIGN DATA

CASE: DO-213AA, Hermetically sealed glass case. (MELF, SOD-80, LL34)

LEAD FINISH: Tin / Lead

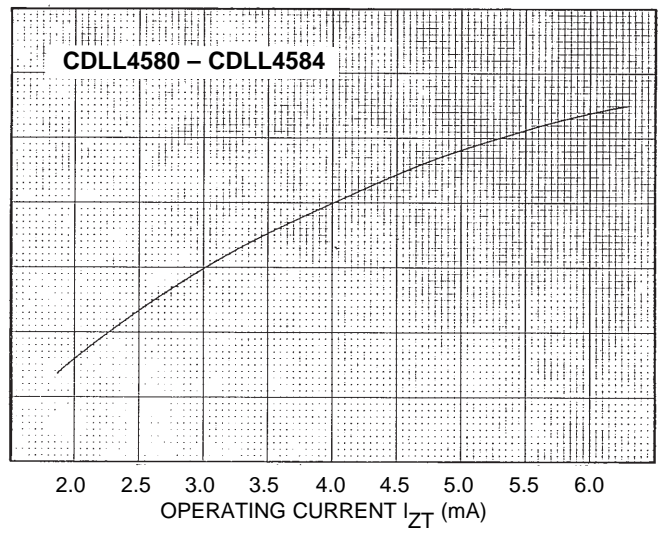
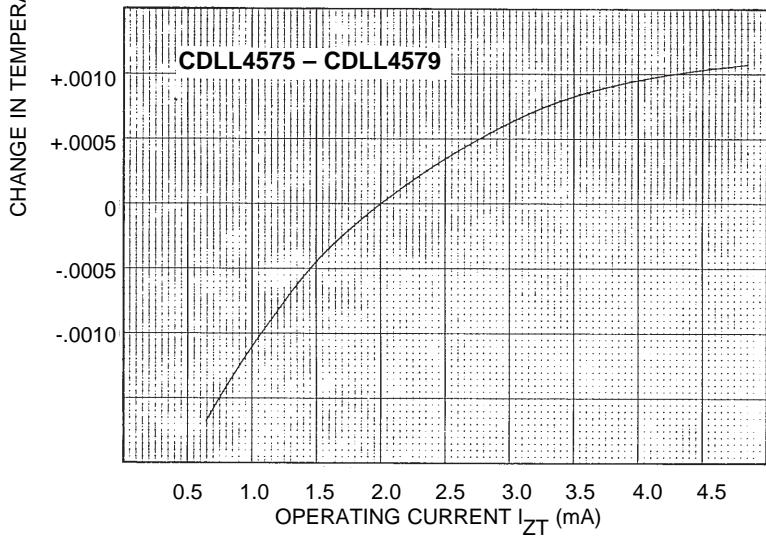
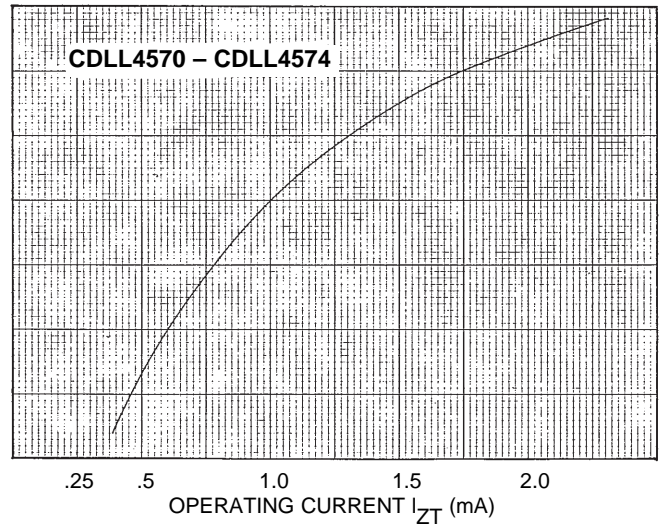
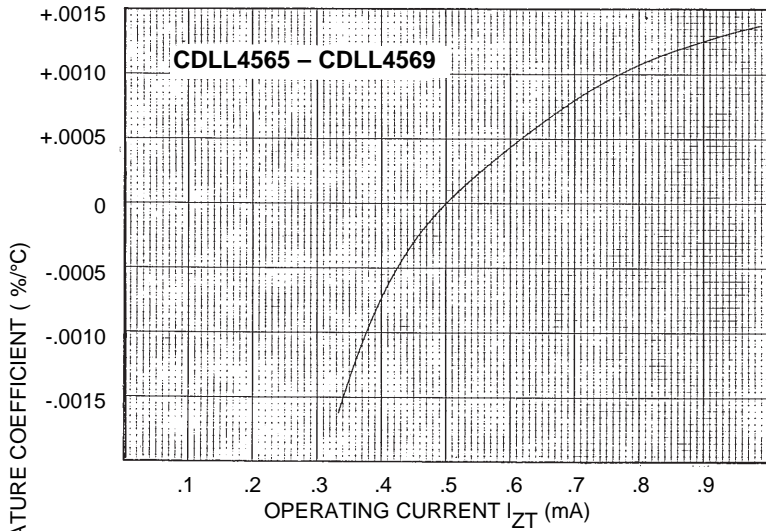
POLARITY: Diode to be operated with the banded (cathode) end positive.

MOUNTING POSITION: Any.

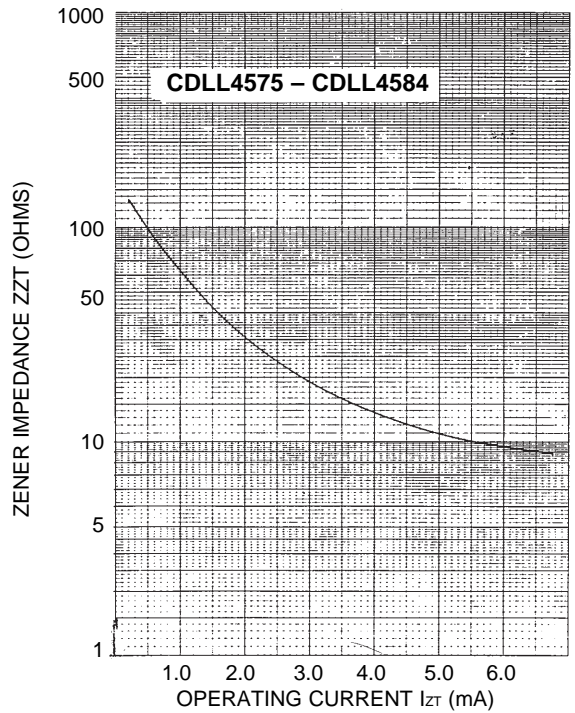
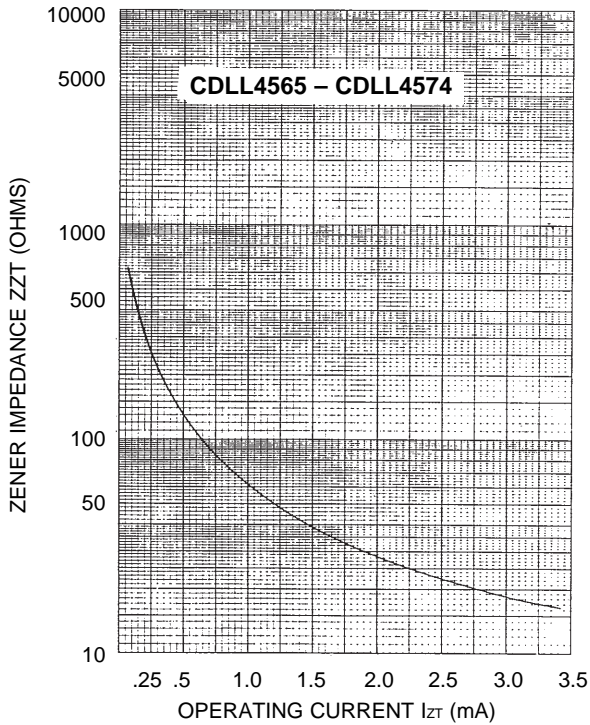
MOUNTING SURFACE SELECTION:
The Axial Coefficient of Expansion (COE) Of this Device is Approximately +6PPM/°C. The COE of the Mounting Surface System Should Be Selected To Provide A Suitable Match With This Device.



CDLL4565 thru CDLL4584A



TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT



ZENER IMPEDANCE VS. OPERATING CURRENT