

- 1N3154UR-1 THRU 1N3157UR-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/158
- TEMPERATURE COMPENSATED ZENER REFERENCE DIODES
- LEADLESS PACKAGE FOR SURFACE MOUNT
- 8.4 VOLT NOMINAL ZENER VOLTAGE
- METALLURGICALLY BONDED, DOUBLE PLUG CONSTRUCTION

1N3154UR-1
thru
1N3157UR-1
and
CDLL3154
thru
CDLL3157A

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

$I_R = 10 \mu A$ @ 25°C & $V_R = 5.5V_{dc}$

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

CDI TYPE NUMBER	ZENER VOLTAGE $V_Z @ I_{ZT}$	ZENER TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE Z_{ZT} (Note 1)	VOLTAGE TEMPERATURE STABILITY ΔV_{ZT} MAXIMUM (Note 2)	TEMPERATURE RANGE	EFFECTIVE TEMPERATURE COEFFICIENT
	VOLTS	mA	OHMS	mV	°C	% / °C
CDLL3154 CDLL3154A	8.00 - 8.80	10	15	130	-55 to +100	.01
	8.00 - 8.80	10	15	172	-55 to +150	.01
CDLL3155 CDLL3155A	8.00 - 8.80	10	15	65	-55 to +100	.005
	8.00 - 8.80	10	15	86	-55 to +150	.005
CDLL3156 CDLL3156A	8.00 - 8.80	10	15	26	-55 to +100	.002
	8.00 - 8.80	10	15	34	-55 to +150	.002
CDLL3157 CDLL3157A	8.00 - 8.80	10	15	13	-55 to +100	.001
	8.00 - 8.80	10	15	17	-55 to +150	.001

NOTE 1 Zener impedance is derived by superimposing on I_{ZT} A 60Hz rms a.c. current equal to 10% of I_{ZT} .

NOTE 2 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.

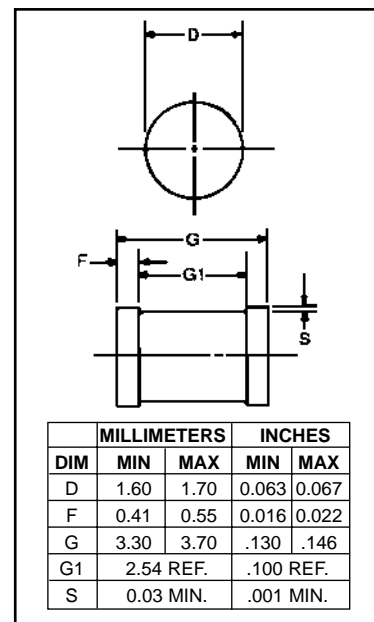


FIGURE 1

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.



COMPENSATED DEVICES INCORPORATED

22 COREY STREET, MELROSE, MASSACHUSETTS 02176
PHONE (781) 665-1071 FAX (781) 665-7379
WEBSITE: <http://www.cdi-diodes.com> E-mail: mail@cdi-diodes.com

CDLL3154 thru CDLL3157A

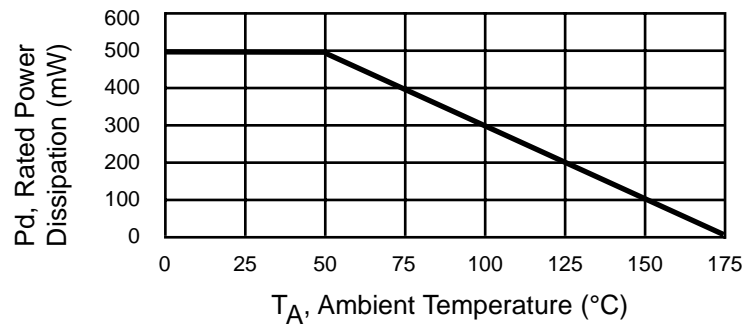


FIGURE 2
POWER DERATING CURVE

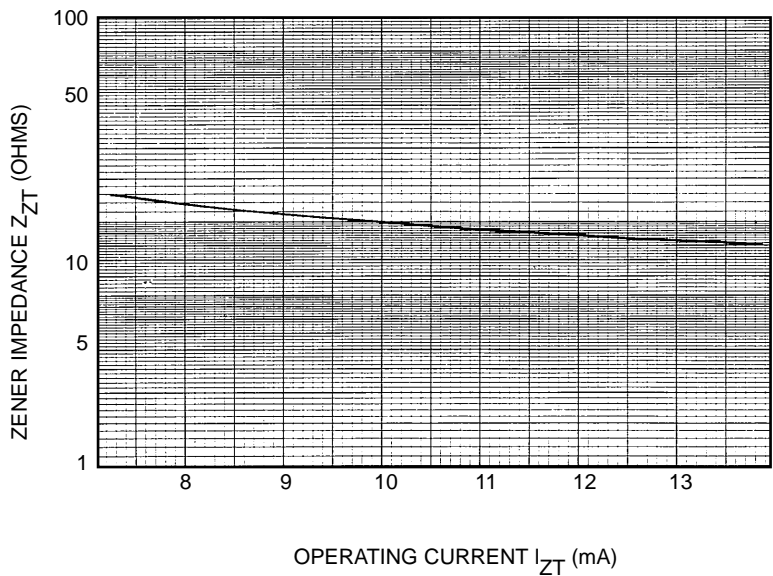


FIGURE 3
ZENER IMPEDANCE VS. OPERATING CURRENT

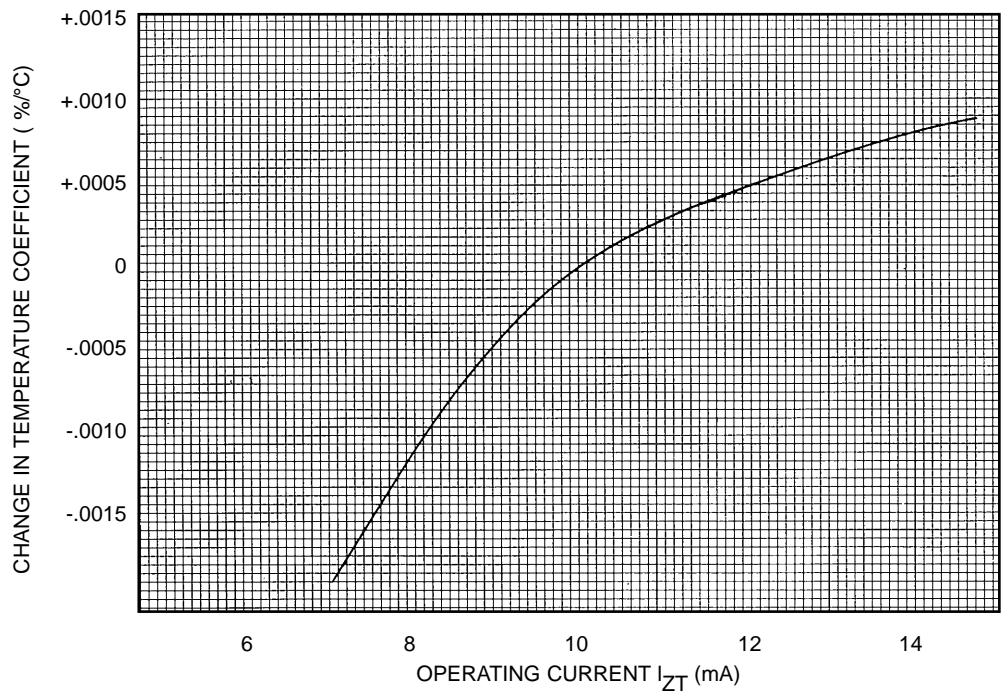


FIGURE 4
**TYPICAL CHANGE OF TEMPERATURE COEFFICIENT
WITH CHANGE IN OPERATING CURRENT**