

- 1N4153UR-1 AVAILABLE IN JAN, JANTX, AND JANTXV
PER MIL-PRF-19500/337
- SWITCHING DIODE
- HERMETICALLY SEALED
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

1N4153UR-1
CDLL4153

MAXIMUM RATINGS

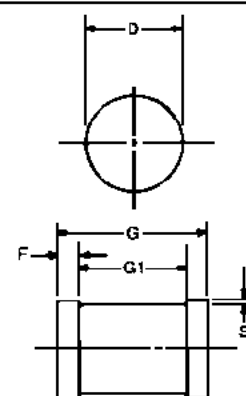
Junction Temperature: -65°C to +175°C
 Storage Temperature: -65°C to +175°C
 Operating Current: 150 mA @ $T_A = +25^\circ\text{C}$
 Derating: 1.0 mA dc/°C Above $T_A = +25^\circ\text{C}$
 Forward Surge Current: 2A (pk), (tp = 1μs); 0.25A (pk), (tp = 1s)

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

| Type | V_{BR} | V_{RWM} | I_{R1} | I_{R2} | C | t_{rr} |
|----------------------|-----------------------|-----------|---|--|-------------------------------|----------|
| | $I_R = 5 \mu\text{A}$ | | $V_R = 50 \text{ V dc}$ $T_A = 25^\circ\text{C}$ | $V_R = 50 \text{ V dc}$ $T_A = 150^\circ\text{C}$ | $V_R = 0; f = 1 \text{ Mhz};$ | |
| | V dc | V (pk) | nA dc | μA dc | pF | ns |
| 4153UR-1 CDLL4153 | 75 75 | 50 50 | 50 50 | 50 50 | 2.0 2.0 | 4 4 |

FORWARD VOLTAGE LIMITS – ALL TYPES

| Limits | V_{F1} | V_{F2} | V_{F3} | V_{F4} | V_{F5} | V_{F6} |
|---------|----------------------------|----------------------------|-------------------------|-------------------------|--------------------------|--------------------------|
| | $I_F = 100 \mu\text{A dc}$ | $I_F = 250 \mu\text{A dc}$ | $I_F = 1 \text{ mA dc}$ | $I_F = 2 \text{ mA dc}$ | $I_F = 10 \text{ mA dc}$ | $I_F = 20 \text{ mA dc}$ |
| | V dc | V dc | V dc | V dc | V dc | V dc |
| minimum | 0.49 | 0.53 | 0.59 | 0.62 | 0.70 | 0.74 |
| maximum | 0.55 | 0.59 | 0.67 | 0.70 | 0.81 | 0.88 |



| DIM | MILLIMETERS | | INCHES | |
|-----|-------------|------|-----------|-------|
| | MIN | MAX | MIN | MAX |
| D | 1.60 | 1.70 | 0.063 | 0.067 |
| F | 0.41 | 0.55 | 0.016 | 0.022 |
| G | 3.30 | 3.70 | .130 | .146 |
| G1 | 2.54 REF. | | .100 REF. | |
| S | 0.03 MIN. | | .001 MIN. | |

FIGURE 1

DESIGN DATA

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

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE ($R_{\theta JEC}$):
100 °C/W maximum at L = 0

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 70 °C/W maximum

POLARITY: Cathode end is banded.

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.



IN4153UR-1 and CDLL4153

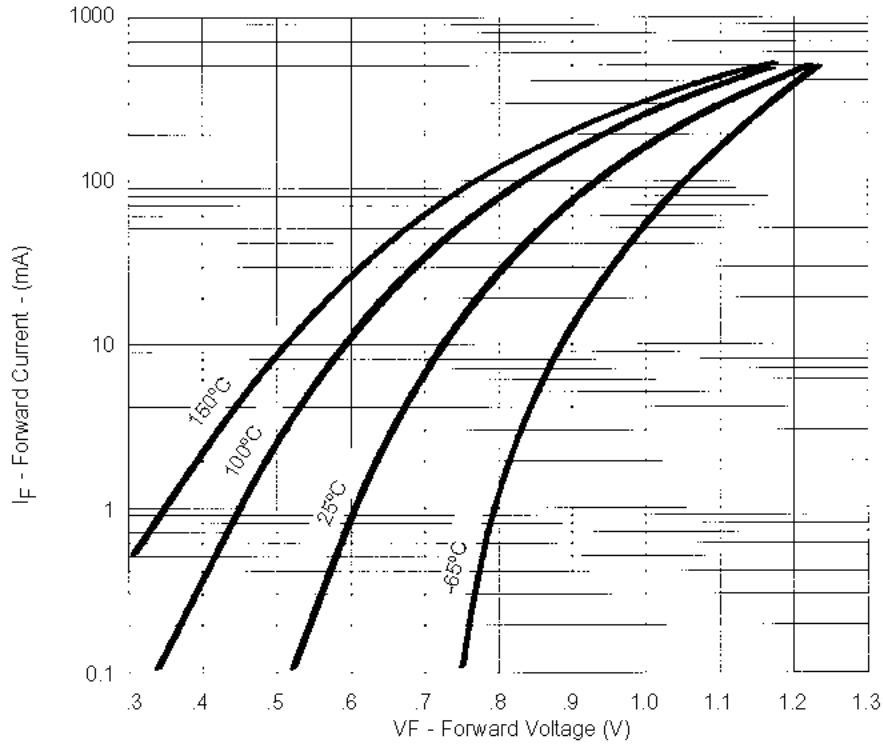
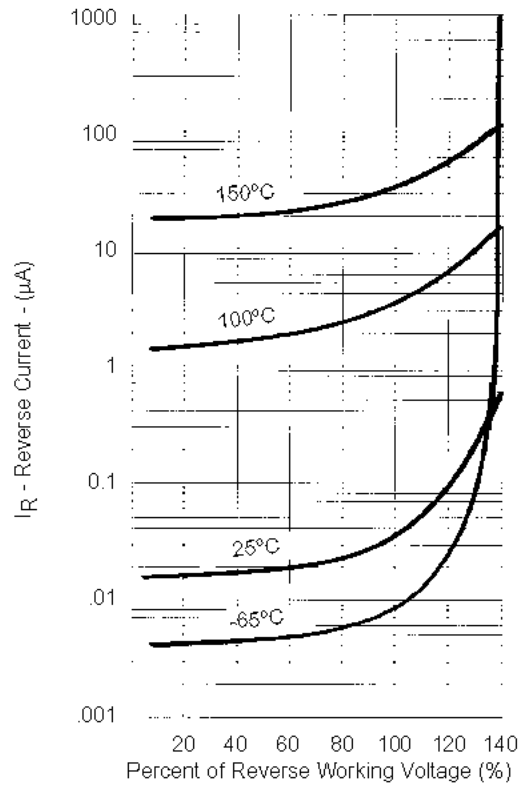


FIGURE 2
Typical Forward Current
vs Forward Voltage



NOTE : All temperatures shown on graphs are junction temperatures

FIGURE 3
Typical Reverse Current
vs Reverse Voltage