

- AVAILABLE IN JAN, JANTX, JANTXV AND JANS
PER MIL-PRF-19500/406
- 1.5 WATT ZENER DIODES
- NON CAVITY CONSTRUCTION
- METALLURGICALLY BONDED

**1N6485US
THRU
1N6491US
AND
1N4460US
AND
1N4461US**

MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C
Storage Temperature: -65°C to +200°C
Power Dissipation: 1.5W @ $T_A=+25^\circ\text{C}$
Power Derating: 10mW/°C above $T_A=+25^\circ\text{C}$
Forward Voltage: 1.0V dc @ $I_F=200\text{mA}$ dc
1.5 V dc @ $I_F=1\text{A}$ dc

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

| TYPE | ZENER VOLTAGE (NOM.) ±5% | TEST CURRENT I_{ZT} | DYNAMIC IMPEDENCE (MAX.) $Z_{ZT}@I_{ZT}$ | KNEE IMPEDENCE (MAX.) $Z_{ZK}@I_{ZT}$ | TEST CURRENT I_{ZK} | REVERSE CURRENT (MAX.) $I_R@V_R$ | TEST VOLTAGE V_R | MAXIMUM CURRENT I_{ZM} | V_Z (REG) ΔV_Z | MAXIMUM SURGE |
|----------|-----------------------------------|-----------------------------|---|--|-----------------------------|---|--------------------------|--------------------------------|-----------------------------|------------------|
| | VOLTS | mA | OHMS | OHMS | mA | μA | VOLTS | MA | VOLTS | AMPS |
| 1N6485US | 3.3 | 76.0 | 10 | 400 | 1.0 | 50 | 1.0 | 433 | .90 | 4.2 |
| 1N6486US | 3.6 | 69.0 | 10 | 400 | 1.0 | 50 | 1.0 | 397 | .80 | 3.9 |
| 1N6487US | 3.9 | 64.0 | 9 | 400 | 1.0 | 35 | 1.0 | 366 | .75 | 3.6 |
| 1N6488US | 4.3 | 58.0 | 9 | 400 | 1.0 | 5.0 | 1.0 | 332 | .70 | 3.3 |
| 1N6489US | 4.7 | 53.0 | 8 | 500 | 1.0 | 4.0 | 1.0 | 304 | .60 | 3.0 |
| 1N6490US | 5.1 | 49.0 | 7 | 500 | 1.0 | 1.0 | 1.0 | 280 | .50 | 2.7 |
| 1N6491US | 5.6 | 45.0 | 5 | 600 | 1.0 | 0.5 | 2.0 | 255 | .40 | 2.5 |
| 1N4460US | 6.2 | 40.0 | 4 | 200 | 1.0 | 10.0 | 3.72 | 230 | .35 | 2.3 |
| 1N4461US | 6.8 | 37.0 | 2.5 | 200 | 1.0 | 5.0 | 4.08 | 210 | .30 | 2.1 |

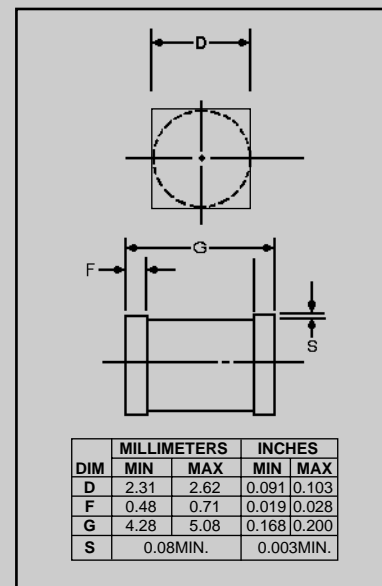


FIGURE 1

DESIGN DATA

CASE: D-5A, hermetically sealed glass case, per MIL-PRF- 19500/406

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: ($R_{\theta JC}$):
20 °C/W maximum at L = 0

THERMAL IMPEDANCE: ($Z_{\theta JX}$): 4.5
°C/W maximum

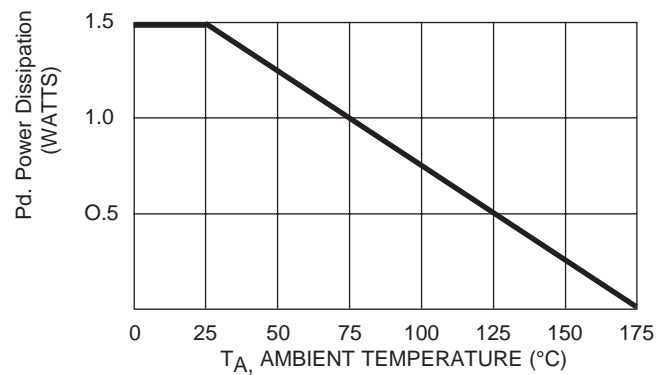
POLARITY: Diode to be operated with the banded (cathode) end positive.

MOUNTING SURFACE SELECTION:
The Axial Coefficient of Expansion (COE) of this device is approximately + 4PPM / °C. The COE of the Mounting Surface System should be selected to provide a suitable match with this device.



1N6485US thru 1N6491US and 1N4460US and 1N4461US

FIGURE 2



POWER DERATING CURVE

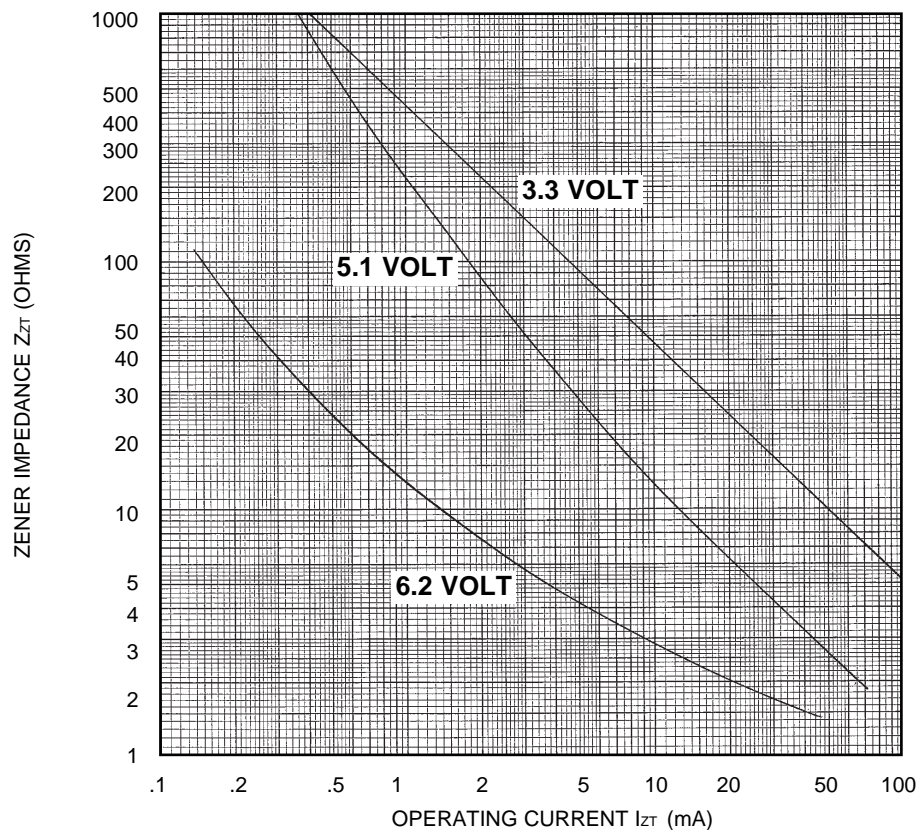


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT