

- AVAILABLE IN JAN, JANTX, JANTXV, AND JANS
PER MIL-PRF-19500/356
- 5 WATT ZENER DIODES
- NON CAVITY CONSTRUCTION
- METALLURGICALLY BONDED

**1N6632US
THRU
1N6637US
AND
1N5968US
AND
1N5969US**

MAXIMUM RATINGS

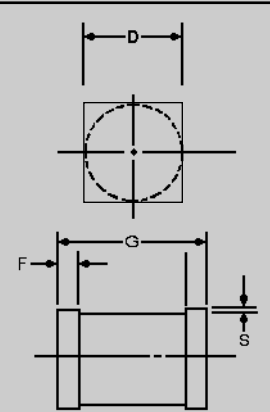
Operating Temperature: -65°C to +175°C
 Storage Temperature: -65°C to +175°C
 Power Dissipation: 5W @ $T_{EC}=+125^{\circ}\text{C}$
 Power Derating: 100mW/°C above $T_{EC}=+125^{\circ}\text{C}$
 Forward Voltage: 1.5 V dc @ $I_F=1\text{A}$ dc

ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

| TYPE | NOMINAL ZENER VOLTAGE $V_Z@I_{ZT}$ $\pm 5\%$ | TEST CURRENT I_{ZT} | MAXIMUM ZENER IMPEDANCE | | REGULATION ΔV_Z | MAXIMUM REVERSE LEAKAGE CURRENT VOLTAGE | | SURGE CURRENT I_{ZSM} |
|----------|--|-----------------------------|-------------------------|---|----------------------------|---|-------|-------------------------------|
| | | | $Z_Z@I_{ZT}$ | $Z_{ZK}(1)$ @ $I_{ZK}=5\text{mA}$ | | I_R | V_R | |
| | | | | | | | | |
| 1N6632US | 3.3 | 380 | 3.0 | 500 | 0.90 | 300 | 1.0 | 20.0 |
| 1N6633US | 3.6 | 350 | 2.5 | 500 | 0.80 | 250 | 1.0 | 18.7 |
| 1N6634US | 3.9 | 320 | 2.0 | 500 | 0.75 | 175 | 1.0 | 17.6 |
| 1N6635US | 4.3 | 290 | 2.0 | 500 | 0.70 | 25 | 1.0 | 16.4 |
| 1N6636US | 4.7 | 260 | 2.0 | 450 | 0.60 | 20 | 1.0 | 15.3 |
| 1N6637US | 5.1 | 240 | 1.5 | 400 | 0.50 | 5 | 1.0 | 14.4 |
| 1N5968US | 5.6 | 220 | 1.0 | 400 | 0.4 | 5000 | 4.28 | 20 |
| 1N5969US | 6.2 | 220 | 1.0 | 1000 | 0.5 | 1000 | 4.74 | 20 |

NOTE 1 $I_{ZK}=1.0$ mA for 1N5969

NOTE 2 Zener voltage is measured using the pulse method, 0.2mSec to 200mSec at I_{ZT} , with the diode junction stabilized at 25°C $\pm 3^{\circ}\text{C}$ prior to the pulse.



| DIM | MILLIMETERS | | INCHES | |
|-----|-------------|------|----------|-------|
| | MIN | MAX | MIN | MAX |
| D | 3.48 | 3.76 | .137 | .148 |
| F | 0.48 | 0.71 | 0.019 | 0.028 |
| G | 5.08 | 5.72 | .200 | .225 |
| S | 0.03MIN. | | .001MIN. | |

FIGURE 1

DESIGN DATA

CASE: D-5B, Hermetically sealed glass case, PER MIL-PRF 19500/356

LEAD FINISH: Tin / Lead

THERMAL RESISTANCE: ($R_{\theta JEC}$):
10 °C/W maximum at L = 0

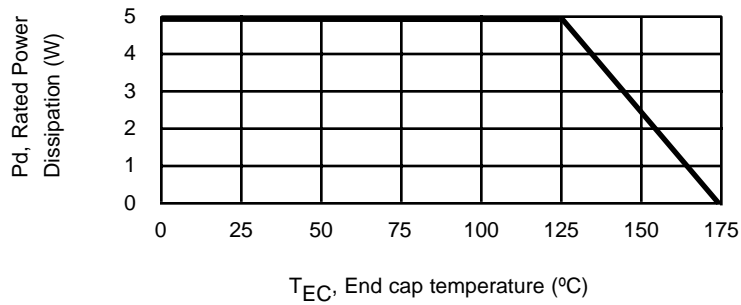
THERMAL IMPEDANCE: ($Z_{\theta JX}$): 3
°C/W maximum

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.



IN6632US thru IN6637US and IN5968US and IN5969US



POWER DERATING CURVE

FIGURE 2

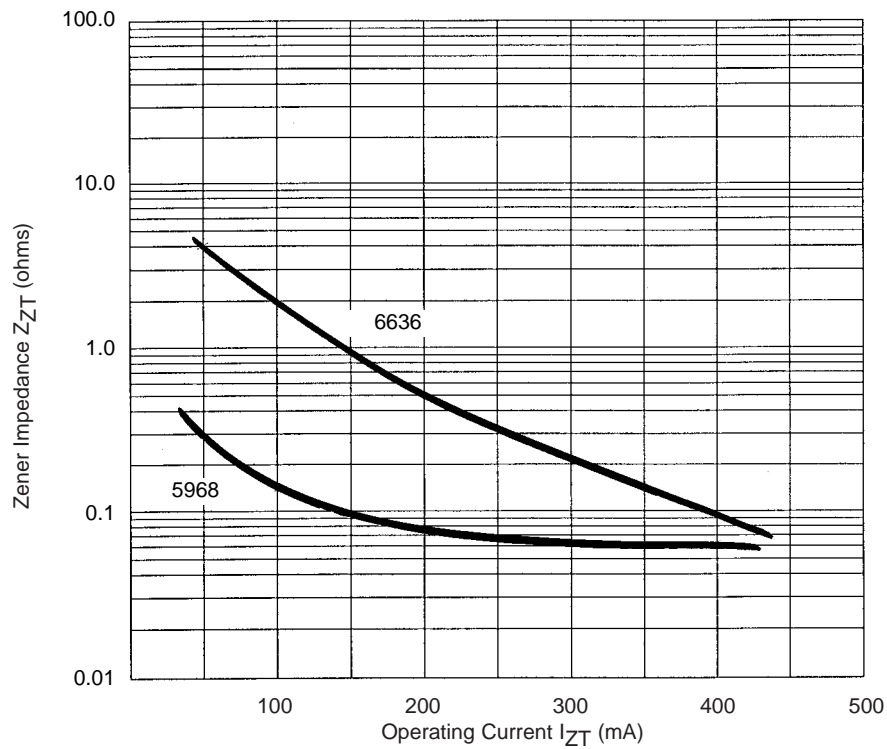


FIGURE 3

Zener Impedance vs. Operating Current