

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

**1N6485  
THRU  
1N6491  
AND  
1N4460  
AND  
1N4461**

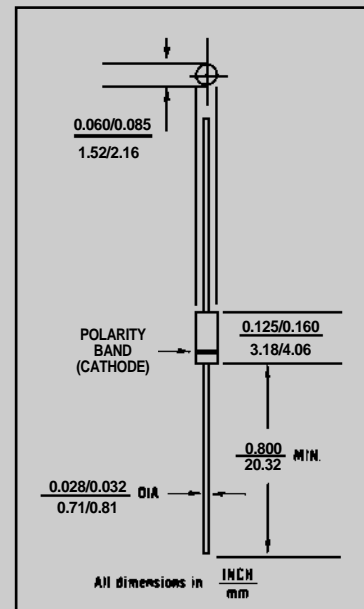
## MAXIMUM RATINGS

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: 1.0 V 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 $\pm 5\%$ $V_Z$	TEST CURRENT $I_{ZT}$	DYNAMIC IMPEDANCE (MAX.) $Z_{ZT}@I_{ZT}$	KNEE IMPEDANCE (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) $\Delta V_Z$	MAXIMUM SURGE
	VOLTS	mA	OHMS	OHMS	mA	$\mu\text{A}$	VOLTS	MA	VOLTS	AMPS
1N6485	3.3	76.0	10	400	1.0	50	1.0	433	.90	4.2
1N6486	3.6	69.0	10	400	1.0	50	1.0	397	.80	3.9
1N6487	3.9	64.0	9	400	1.0	35	1.0	366	.75	3.6
1N6488	4.3	58.0	9	400	1.0	5.0	1.0	332	.70	3.3
1N6489	4.7	53.0	8	500	1.0	4.0	1.0	304	.60	3.0
1N6490	5.1	49.0	7	500	1.0	1.0	1.0	280	.50	2.7
1N6491	5.6	45.0	5	600	1.0	0.5	2.0	255	.40	2.5
1N4460	6.2	40.0	4	200	1.0	10.0	3.72	230	.35	2.3
1N4461	6.8	37.0	2.5	200	1.0	5.0	4.08	210	.30	2.1

**NOTE:** Zener voltage is measured with the device junction in thermal equilibrium at an ambient temperature of  $25^\circ\text{C} \pm 3^\circ\text{C}$ .



**FIGURE 1**

## DESIGN DATA

**CASE:** Hermetically sealed, Glass "A"  
 Body per MIL-PRF- 19500/406  
 D-5A

**LEAD MATERIAL:** Copper clad steel

**LEAD FINISH:** Tin / Lead

**THERMAL RESISTANCE:** ( $R_{\theta JL}$ ): 42  
 °C/W maximum at L = .375

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

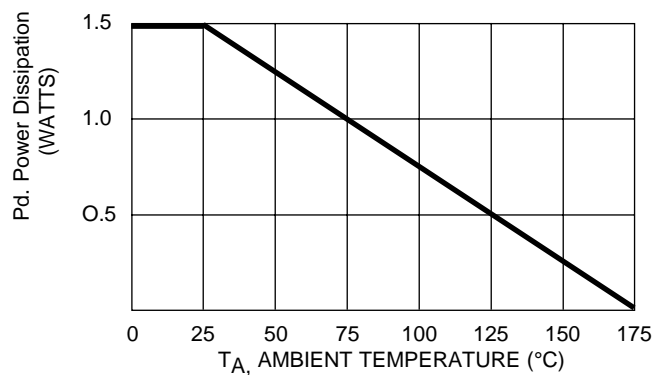
**POLARITY:** Diode to be operated with the banded (cathode) end positive.

**MOUNTING POSITION:** Any



# 1N6485 thru 1N6491 and 1N4460 and 1N4461

FIGURE 2



POWER DERATING CURVE

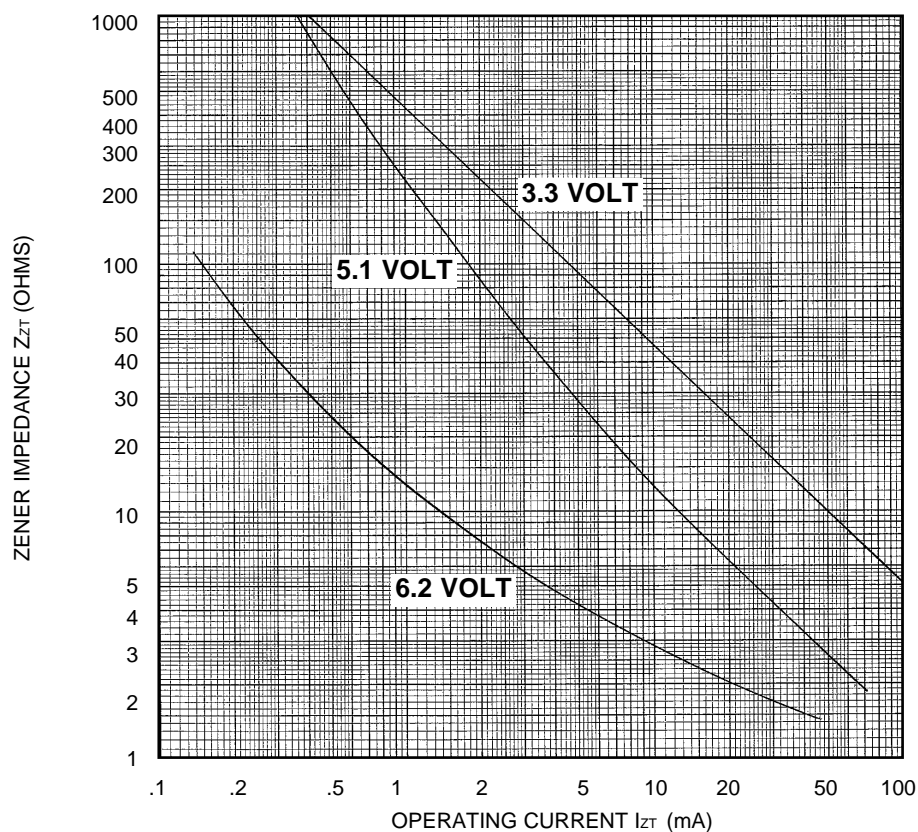


FIGURE 3

ZENER IMPEDANCE VS. OPERATING CURRENT