

**Microsemi Corp.**  
The diode experts



# 1N4942 thru 1N4948

SANTA ANA, CA

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(714) 979-8220

## FEATURES

- MICROMINIATURE PACKAGE
- VOIDLESS HERMETICALLY SEALED GLASS PACKAGE
- TRIPLE LAYER PASSIVATION
- METALLURGICALLY BONDED
- FAST RECOVERY
- PIV TO 1000 VOLTS
- JAN/TX/TXV TYPES AVAILABLE PER MIL-S-19500/359

## MAXIMUM RATINGS

Operating Temperature: -65°C to +175°C

Storage Temperature: -65°C to +200°C

Power Dissipation: (A) 3 Amp/MIL-STD-750 (See Figure 2)

(B) 1 Amp/no heat sink @ +55°C

## ELECTRICAL CHARACTERISTICS

TYPE	PEAK INVERSE VOLTAGE (MAX.) PIV	BREAKDOWN VOLTAGE (MIN.) $B_V$ @ 50 $\mu$ A	AVERAGE RECTIFIED CURRENT $I_o$		FORWARD VOLTAGE (MAX.) $V_F$ @ 1 A		REVERSE CURRENT (MAX.) $I_R$ @ PIV		CAPACITANCE (MAX.) $C_o$ @ -12V	SURGE CURRENT (MAX.) (NOTE 1) $I_F$ (surge)	REVERSE RECOVERY (MAX.) (NOTE 2) $t_{rr}$
			AMPS		VOLTS		$\mu$ A				
			55°C	100°C	25°C	150°C	25°C	150°C			
JAN 1N4942	200	220	1.0	.750	1.3	1.0	200	45	15	150	
JAN 1N4944	400	440	1.0	.750	1.3	1.0	200	35	15	150	
JAN 1N4946	600	660	1.0	.750	1.3	1.0	200	25	15	250	
JAN 1N4947	800	880	1.0	.750	1.3	1.0	200	25	15	250	
JAN 1N4948	1000	1100	1.0	.750	1.3	1.0	200	15	15	500	

NOTE 1:  $T_A = 100^\circ\text{C}$ ,  $f = 60\text{ Hz}$ ,  $I_o = 750\text{ mA}$ , 10-8 m sec. surges @ 1/minute.

NOTE 2:  $I_F = 0.5\text{ A}$ ,  $I_{Rm} = 1\text{ A}$ ,  $i_{R(REC)} = .250\text{ A}$

## MILITARY RECTIFIERS

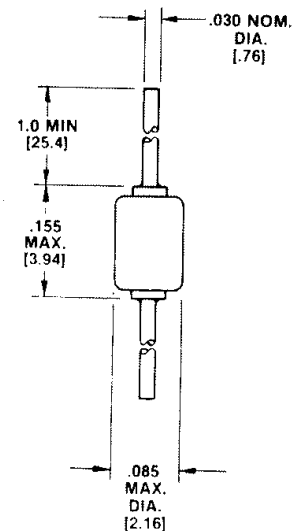


FIGURE 1  
PACKAGE A

## MECHANICAL CHARACTERISTICS

CASE: Hermetically sealed glass case.

LEAD MATERIAL: Tinned copper.

MARKING: Body painted, alpha numeric.

POLARITY: Cathode band.

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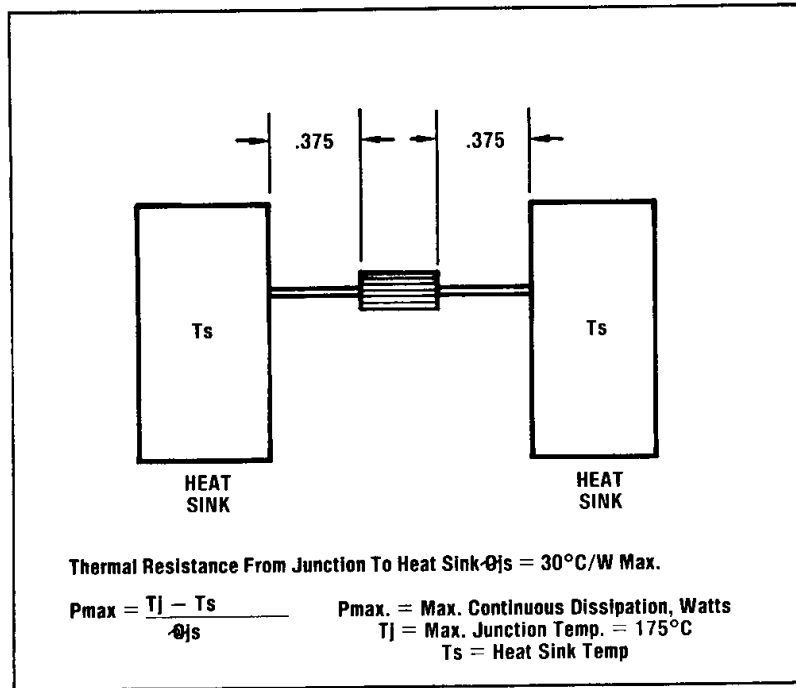


FIGURE 2  
MIL STD 750 METHOD 1026 (A)

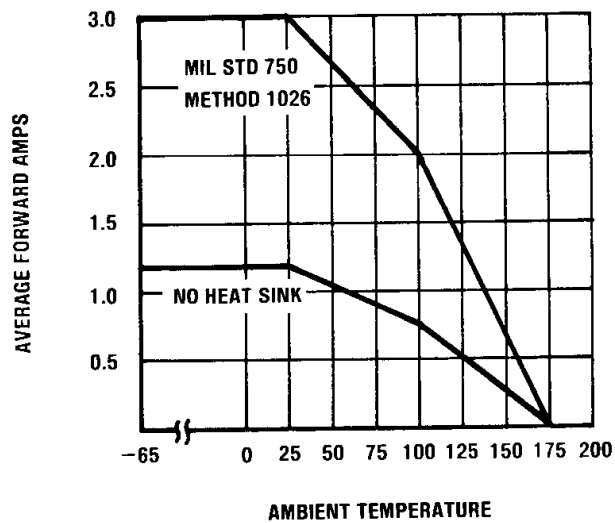


FIGURE 3  
MAXIMUM FORWARD CURRENT  
vs AMBIENT TEMPERATURE