

# 1N4942-1N4948

## FAST RECOVERY RECTIFIERS DIODES

### FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

### MAXIMUM RATINGS

Operating temperature	-65 to +175°C
Storage temperature	-65 to +200°C
Power dissipation	1 amp/no heat sink @ 55°C 3 amp/MIL-STD-750 (see figure 2)

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)

Part number	Peak inverse voltage (max.) PIV	Breakdown voltage (min) B <sub>v</sub> @ 50μA	Average rectified current I <sub>o</sub>		Forward voltage (max) V <sub>F</sub> @ 1A	Reverse current (max) I <sub>R</sub> @ PIV		Capacitance (max) C <sub>o</sub> @ -12V	Surge current (max) <sup>(1)</sup> I <sub>F(surge)</sub>	Reverse recovery (max) <sup>(2)</sup> t <sub>rr</sub>
	Volts	Volts	Amps		Volts	μA		pF	Amps	n sec.
			55°C	100°C		25°C	150°C			
1N4942	200	220	1.0	.750	1.3	1.0	200	45	15	150
1N4944	400	440	1.0	.750	1.3	1.0	200	35	15	150
1N4946	600	660	1.0	.750	1.3	1.0	200	25	15	250
1N4947	800	880	1.0	.750	1.3	1.0	200	25	15	250
1N4948	1000	1100	1.0	.750	1.3	1.0	200	15	15	500

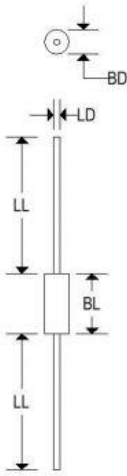
Note 1: T<sub>A</sub> = 100°C, f = 60Hz, I<sub>o</sub> = 750mA, 10-8 msec. surges @ 1/minute.  
Note 2: I<sub>F</sub> = 0.5A, I<sub>RM</sub> = 1A, I<sub>R(REC)</sub> = 0.25A

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### MECHANICAL CHARACTERISTICS

<b>Case:</b>	Digi A
<b>Marking:</b>	Alpha-numeric
<b>Polarity:</b>	Cathode band



	Digi A			
	Inches		Millimeters	
	Min	Max	Min	Max
<b>BD</b>	0.060	0.095	1.524	2.413
<b>BL</b>	0.125	0.205	3.175	5.207
<b>LD</b>	0.026	0.033	0.660	0.838
<b>LL</b>	1.000	1.500	25.400	38.100

BL includes slugs and uncontrolled area of the leads

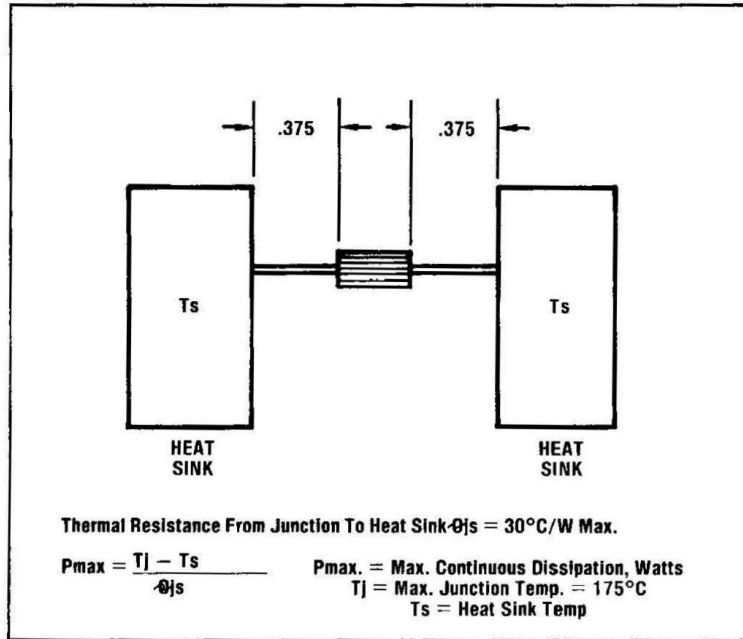


FIGURE 2  
MIL STD 750 METHOD 1026 (A)

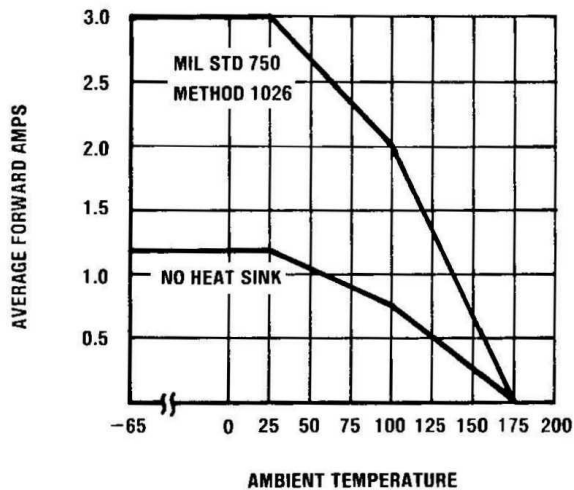


FIGURE 3  
MAXIMUM FORWARD CURRENT  
vs AMBIENT TEMPERATURE