DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

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_A = 25°C unless otherwise specified)

Part number	Peak inverse voltage (max.) PIV	Breakdown voltage (min) B_V @ 50µA	Average rectified current I_O		Forward voltage (max) V_F @ 1A	Reverse current (max) I_R @ PIV		Capacitance (max) C_O @ -12V	Surge current (max) (1) $I_{F(surge)}$	Reverse recovery (max) (2) t_{rr}
	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_A = 100°C, f = 60Hz, I_O = 750mA, 10-8 msec. surges @ 1/minute.
Note 2: I_F = 0.5A, I_{RM} = 1A, $I_{R(REC)}$ = 0.25A

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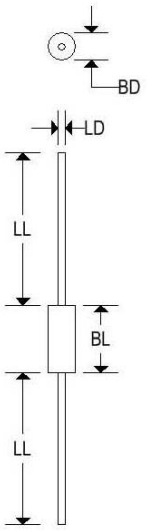
MECHANICAL CHARACTERISTICS

Case:	Digi A
Marking:	Body painted, alpha-numeric
Polarity:	Cathode band



	Digi A			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	-	0.095	-	2.413
BL	-	0.180	-	4.572
LD	0.028	0.032	0.711	0.813
LL	0.700	-	17.800	-

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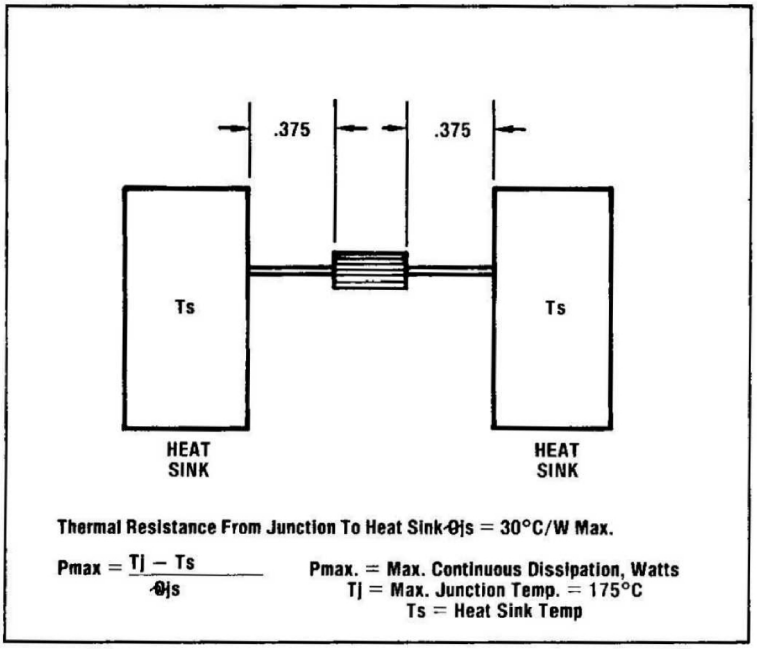

FIGURE 2
MIL STD 750 METHOD 1026 (A)

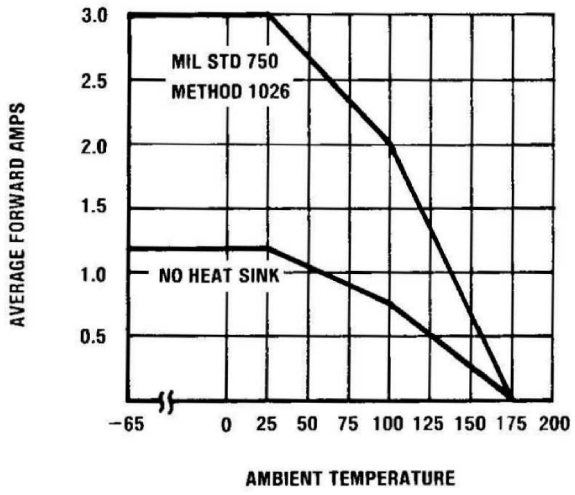

FIGURE 3
MAXIMUM FORWARD CURRENT
vs AMBIENT TEMPERATURE