

MR2400FR-MR2410FR

24A FAST RECOVERY RECTIFIER

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°C to +150°C		
Storage Temperature	-65°C to +175°C		
Maximum Thermal Resistance	0.8°C/W Junction to case		
Type	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MR2400FR	50V	35V	50V
MR2401FR	100V	70V	100V
MR2402FR	200V	140V	200V
MR2404FR	400V	280V	400V
MR2406FR	600V	420V	600V
MR2408FR	800V	560V	800V
MR2410FR	1000V	700V	1000V

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Test Conditions
Average Forward Current	I _{F(AV)}	24A	T _C = 125°C
Peak Forward Surge Current	I _{FSM}	300A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V _{F*}	1.15V	I _{FM} = 24.0A T _A = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I _R	25μA 1.0μA	T _C = 25°C T _C = 100°C
Maximum Reverse Recovery Time	t _{rr}	100 to 250ns	I _F = 0.5A, I _R = 1.0A, I _{rr} = 0.25A
Typical Junction Capacitance	C _J	95pF	Measured at 1.0MHz, V _R = 4.0V

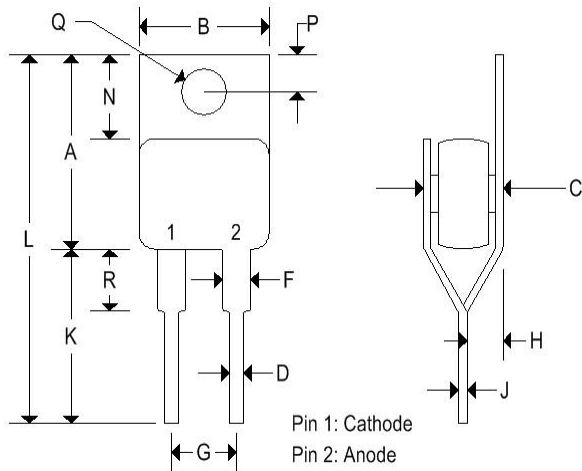
*Pulse Test: Pulse width 300 μsec, Duty cycle 1%

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MECHANICAL CHARACTERISTICS

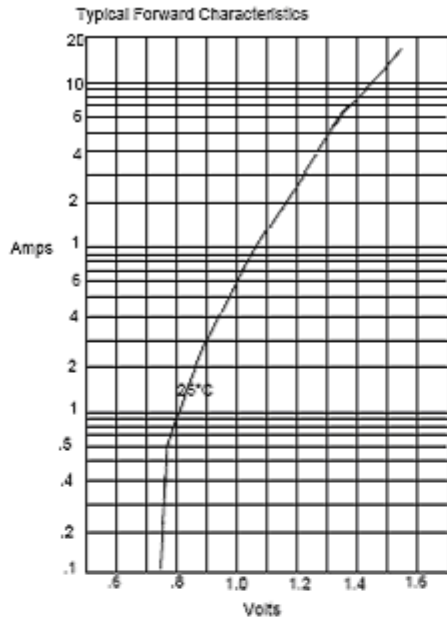
Case	Digi AA
Pin out	See below
Marking	Alpha-numeric



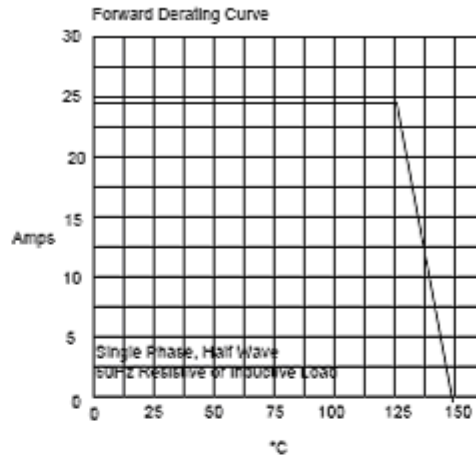
	Digi AA			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.560	0.625	14.220	15.88
B	0.380	0.420	9.650	10.670
C	0.284	0.310	7.210	7.870
D	0.025	0.045	0.640	1.140
F	0.060	0.090	1.520	2.290
G	0.170	0.210	4.320	5.330
H	0.080	0.115	2.030	2.920
J	0.023	0.029	0.580	0.740
K	-	0.562	-	14.270
L	-	1.187	-	30.150
N	0.230	0.270	5.840	6.860
P	0.100	0.120	2.5400	3.050
Q	0.139	0.147	3.530	3.730
R	-	0.200	-	5.080

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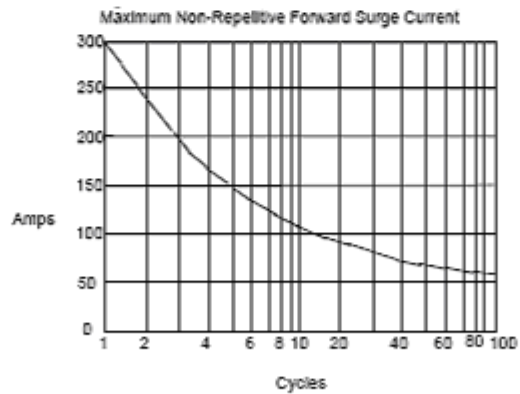
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Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts



Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

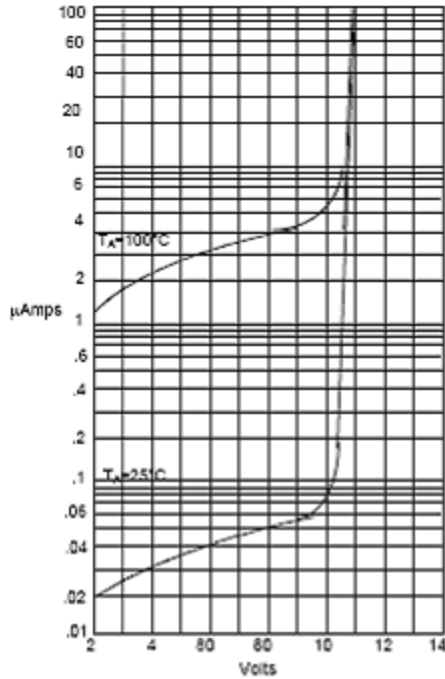


Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles

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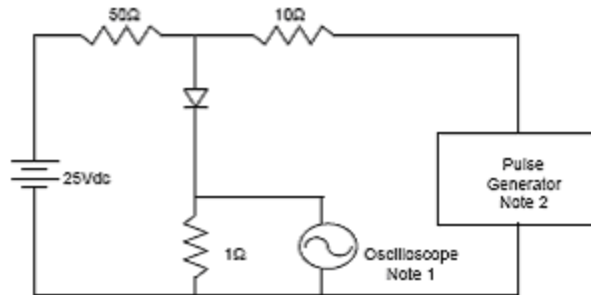
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Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.
Input Impedance = 1 megohm, 22pF
 2. Rise Time = 10ns max.
 3. Source Impedance = 50 ohms
 3. Resistors are non-inductive

