



Micro Commercial Components

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## Features

- Glass Passivated Die
- Low Forward Voltage Drop
- High Current Capability
- High Surge Current
- Low Leakage
- Anode To Tab Configuration
- Marking : Type Number

## Maximum Ratings

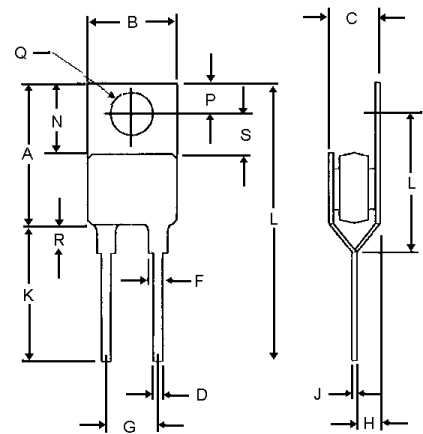
- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +175°C
- Thermal Resistance Junction to Case (Rthjc):0.8°C/W

MR2400FR  
 THRU  
 MR2410FR

24 Amp Fast Recovery  
 Rectifiers  
 50-1000 Volt

MCC Part Number	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

## TO-220 Button



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	24.0A	$T_a = 125^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	300A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.15V	$I_{FM} = 24.0\text{A}; T_a = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	25 $\mu\text{A}$ 1.0mA	$T_c = 25^\circ\text{C}$ $T_c = 100^\circ\text{C}$
Maximum Reverse Recovery Time	$T_{rr}$	100ns to 250ns.	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$
Typical Junction Capacitance	$C_J$	95pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$

DIM	DIMENSIONS				NOTE
	INCHES		M M		
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.284	.310	7.21	7.87	
D	.025	.045	0.64	1.14	
F	.060	.090	1.52	2.29	
G	.170	.210	4.32	5.33	
H	.080	.110	2.03	2.92	
J	.023	.029	0.58	0.74	
K	---	.562	---	14.27	
L	---	1.187	---	30.15	
N	.230	.270	5.84	6.86	
P	.100	.120	2.54	3.05	
Q	.139	.147	3.53	3.73	
R	---	.200	---	5.08	
S	.140	.150	3.55	3.80	
T	.670	.690	17.02	17.53	

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

[www.mccsemi.com](http://www.mccsemi.com)

MR2400FR thru MR2410FR

Figure 1  
Typical Forward Characteristics

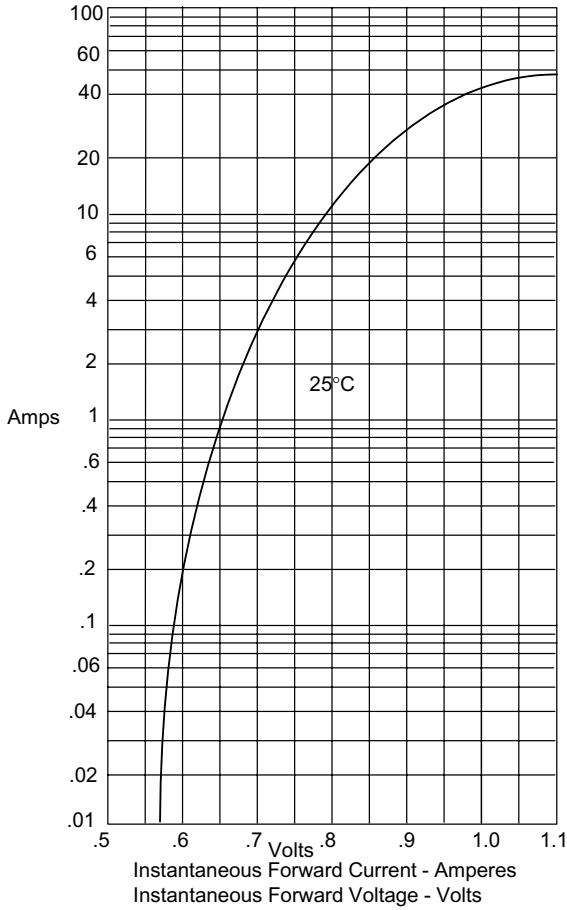


Figure 2  
Forward Derating Curve

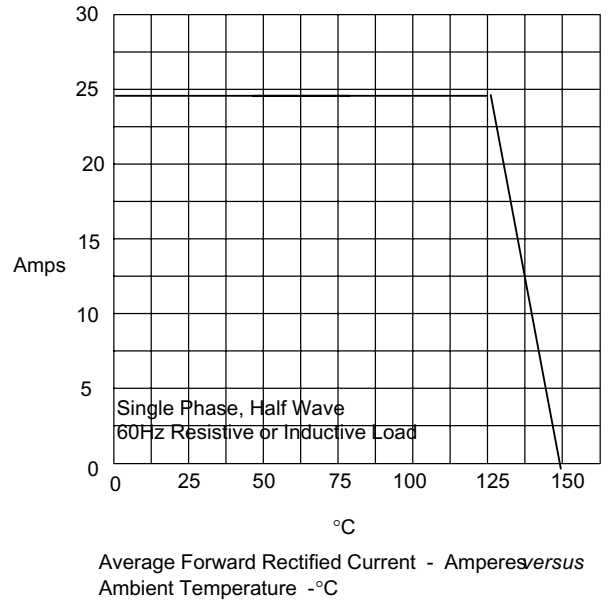
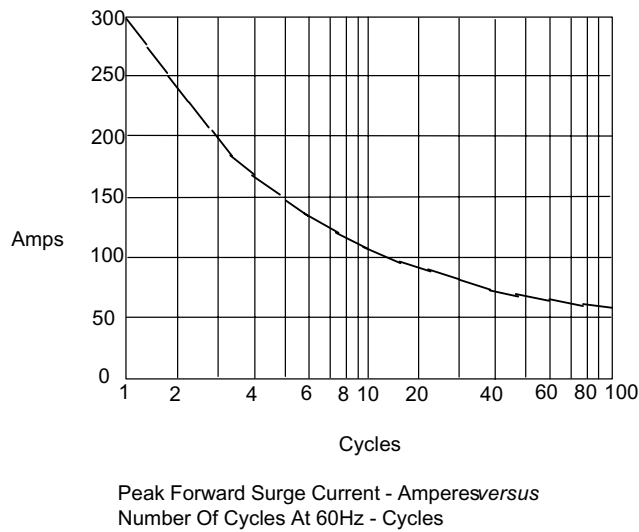
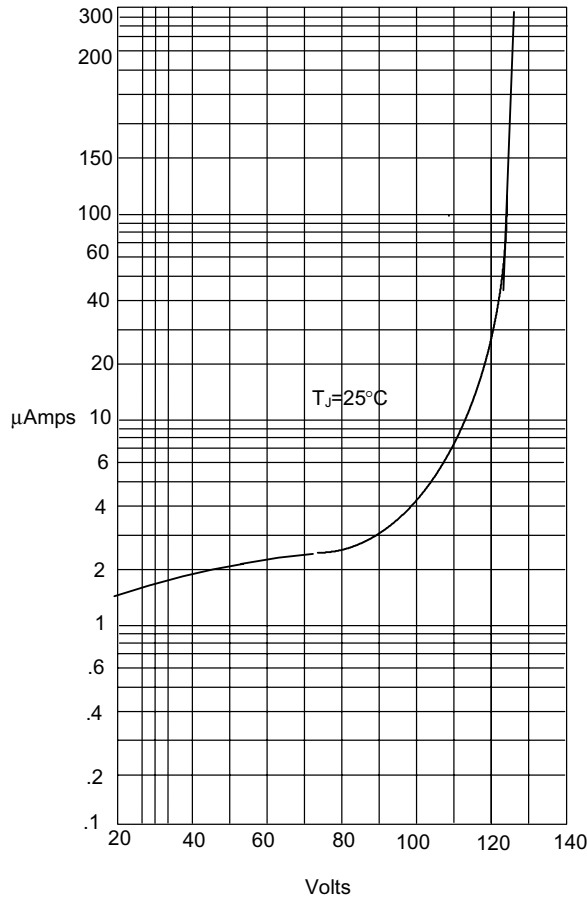


Figure 3  
Maximum Non-Repetitive Forward Surge Current



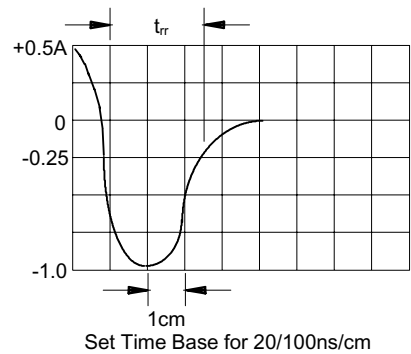
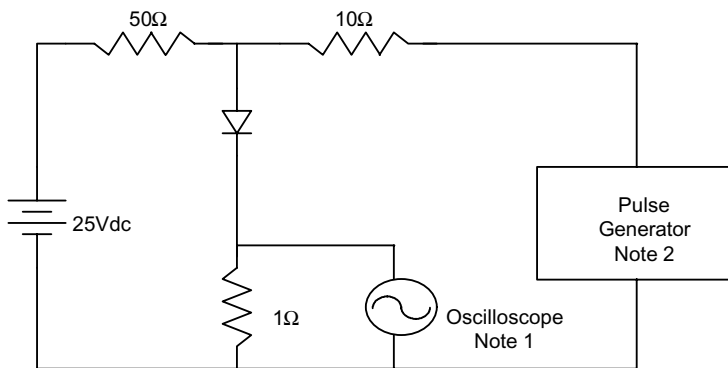
MR2400FR thr MR2410FR

Figure 4  
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.  
Source impedance = 50 ohms
  3. Resistors are non-inductive



TM

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