



Micro Commercial Components  
 21201 Itasca Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

# MUR10005 THRU MUR10060

## Features

- Supre Fast switching for high efficiency
- High Surge Capability
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability

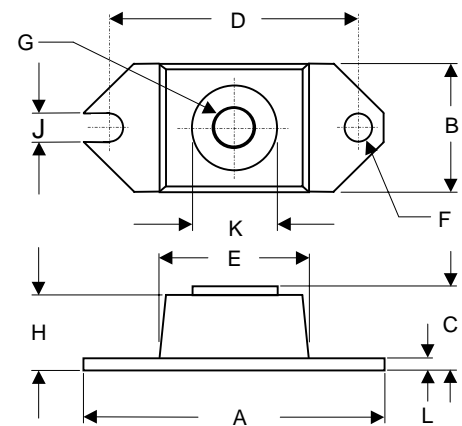
## 100 Amp Supre Fast Recovery Rectifier 50 to 600 Volts

## Maximum Ratings

- Operating Temperature: -55°C to +175°C
- Storage Temperature: -55°C to +175°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR10005	50V	35V	50V
MUR10010	100V	70V	100V
MUR10020	200V	40V	200V
MUR10040	400V	280V	400V
MUR10060	600V	420V	600V

## HALF PACK



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	100 A	$T_C = 135^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	800A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 10005-10020 10040-10060	$V_F$	1.25V 1.75V	$I_{FM} = 100A;$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	50 $\mu\text{A}$ 6mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time 10005-10020 10040 10060	$T_{rr}$	60ns 75ns 90ns	$I_F=0.5A, I_R=1.0A,$ $I_{rr}=0.25A$
Typical Junction Capacitance 10005-10020 10040 10060	$C_J$	575pF 300pF 275pF	Measured at 1.0MHz, $V_R=10V$

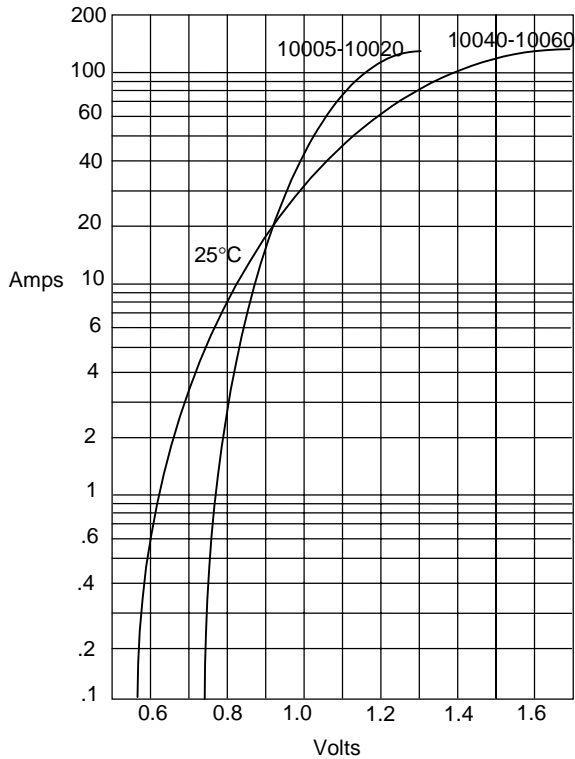
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.515	1.560	38.48	39.62	
B	.725	.775	18.42	19.69	
C	.595	.625	15.11	15.88	
D	1.182	1.192	30.02	30.28	
E	.745	.755	18.92	18.18	
F	.152	.160	3.86	4.06	$\emptyset$
G	1/4 - .20		UNC - .2B		
H	.540	.580	13.72	14.73	
J	.15	.160	3.96	4.06	
K	.495	.505	12.57	12.83	$\emptyset$
L	.120	.130	3.05	3.30	

\*Pulse Test: Pulse Width 300 $\mu\text{sec}$ , Duty Cycle 2%

# MUR10005 thru MUR10060

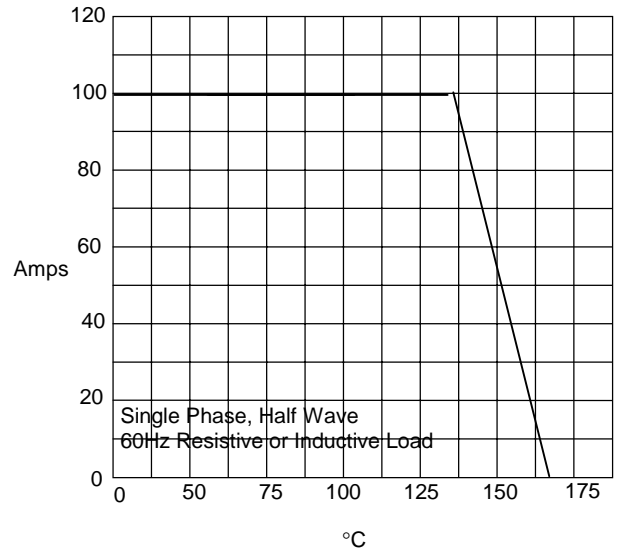


Figure 1  
Typical Forward Characteristics



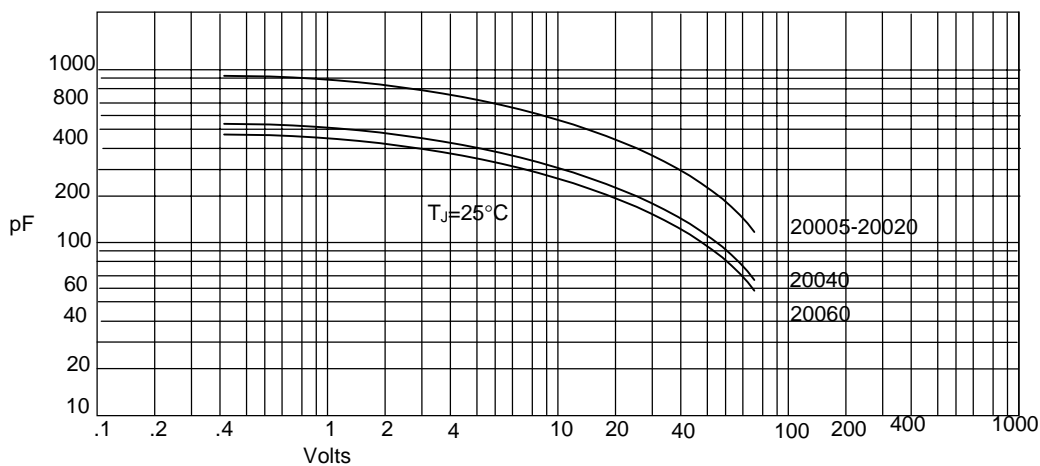
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



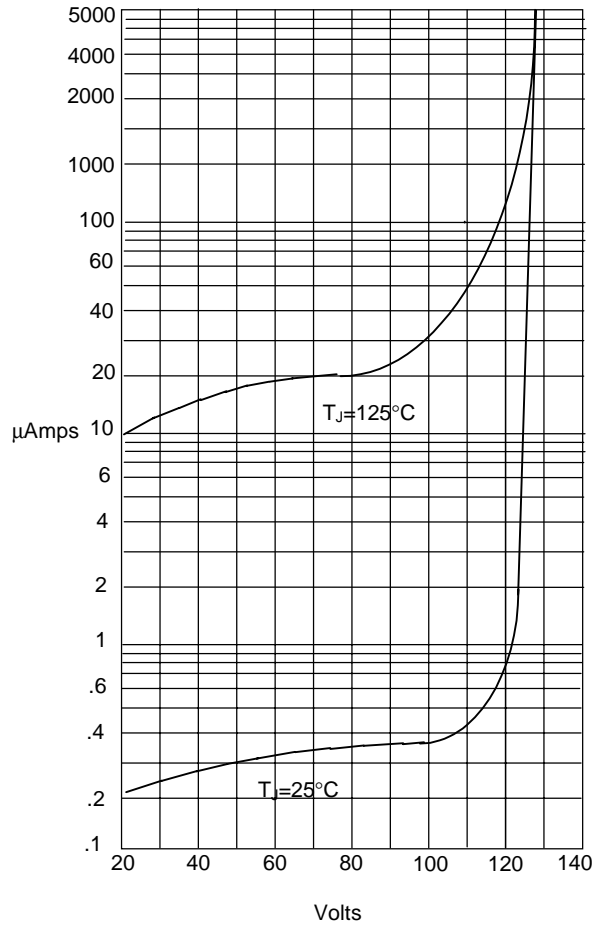
Average Forward Rectified Current - Amperes versus  
Case Temperature - °C

Figure 3  
Junction Capacitance

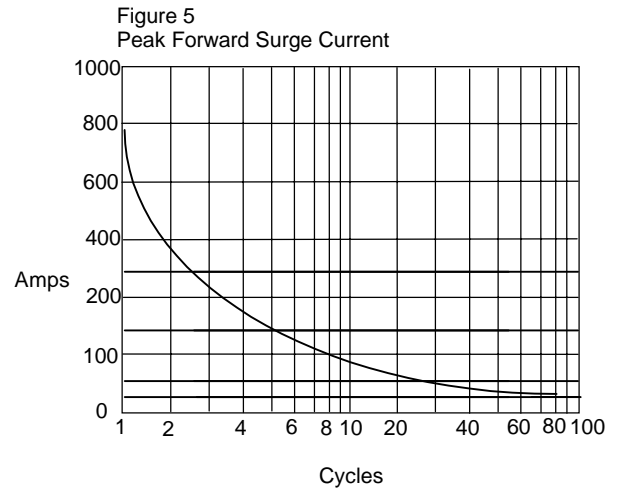


Junction Capacitance - pF versus  
Reverse Voltage - Volts

Figure 4  
Typical Reverse Characteristics



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



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