Micro Commercial Components
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MUR5005 THRU MUR5060

50 Amp Supre Fast Recovery Rectifier 50 to 600 Volts

Features

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

Maximum Ratings

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

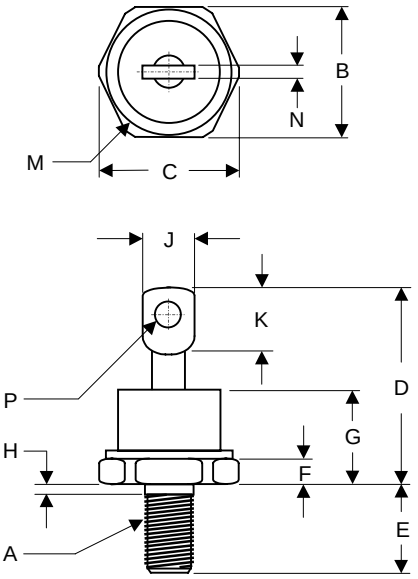
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR5005	50V	35V	50V
MUR5010	100V	70V	100V
MUR5020	200V	140V	200V
MUR5040	400V	280V	400V
MUR5060	600V	420V	600V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	50 A	T_C = 135°C
Peak Forward Surge Current	I_{FSM}	600A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 5005-5020 5040 5060	V_F	1.15V 1.35V 1.70V	I_{FM} = 50A; T_J = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	50µA 6mA	T_J = 25°C T_J = 125°C
Maximum Reverse Recovery Time 5005-5020 5040 5060	T_{rr}	60ns 75ns 90ns	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
Typical Junction Capacitance 5005-5020 5040 5060	C_J	575pF 300pF 275pF	Measured at 1.0MHz, V_R=10V

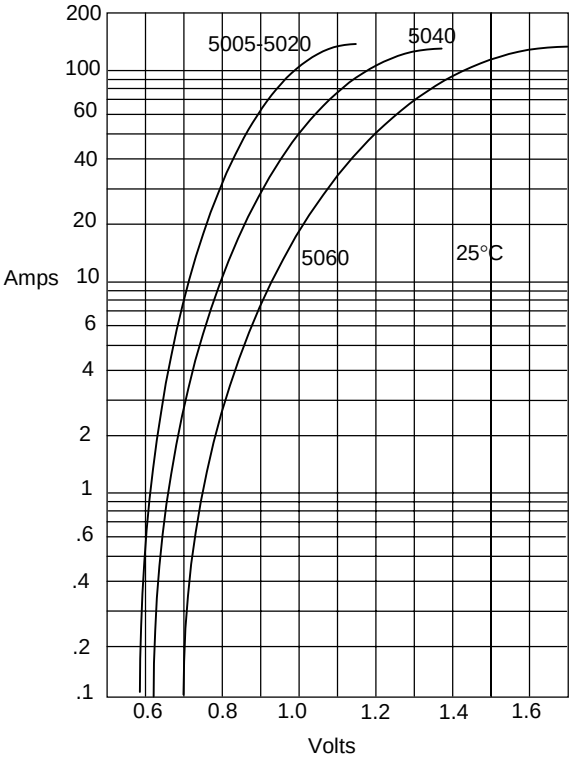
*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

DO-5



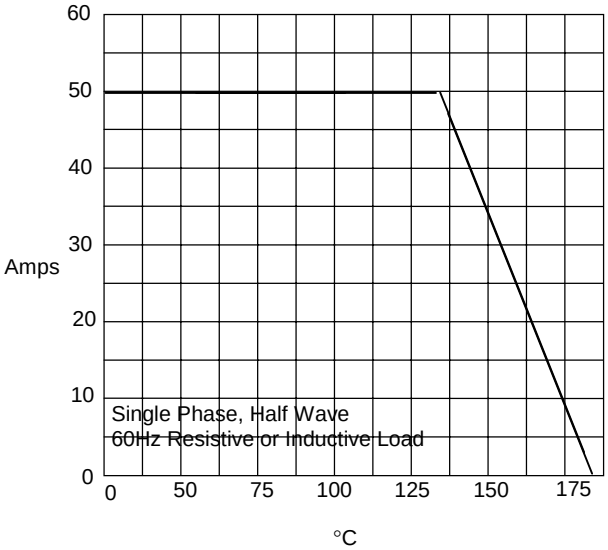
DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	¼-28	Threads	Standard	Polarity	
B	.669	.687	17.19	17.44	
C	-----	.794	-----	20.16	
D	-----	1.020	-----	25.91	
E	.422	.453	10.72	11.50	
F	.115	.200	2.93	5.08	
G	-----	.460	-----	11.68	
H	.220	.249	5.58	6.32	
J	-----	.375	-----	9.52	
K	.156	-----	3.96	-----	
M	-----	.667	-----	16.94	∅
N	-----	.080	-----	2.03	
P	.140	.175	3.56	4.45	∅

Figure 1
Typical Forward Characteristics



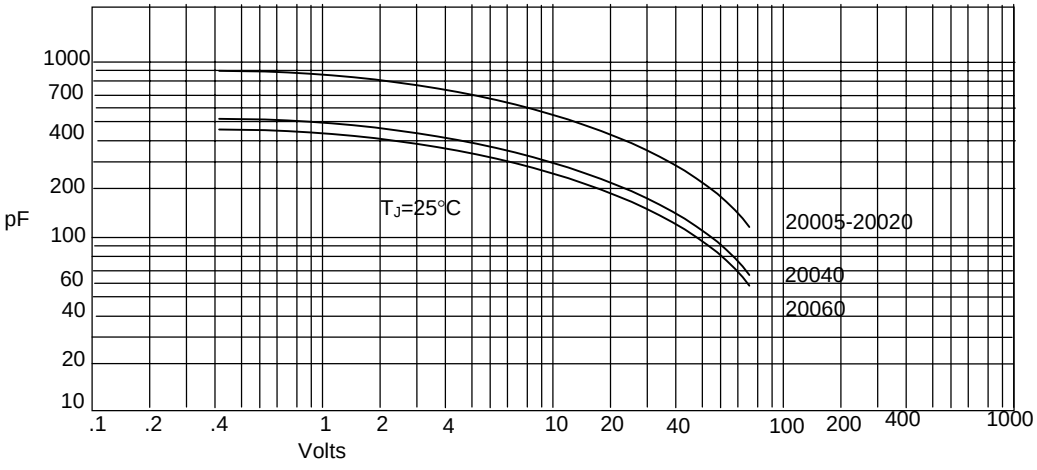
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



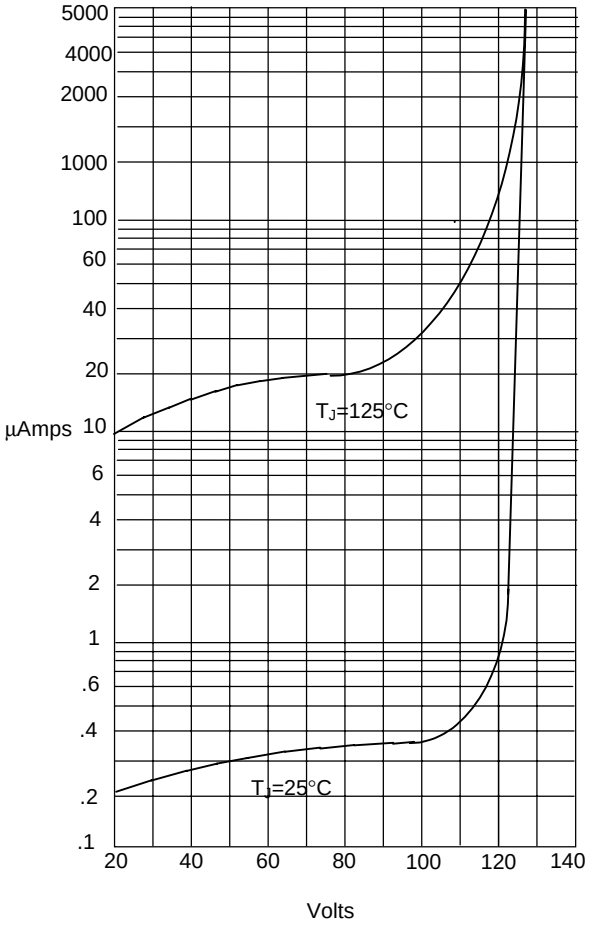
Average Forward Rectified Current - Amperes *versus*
Case Temperature - °C

Figure 3
Junction Capacitance



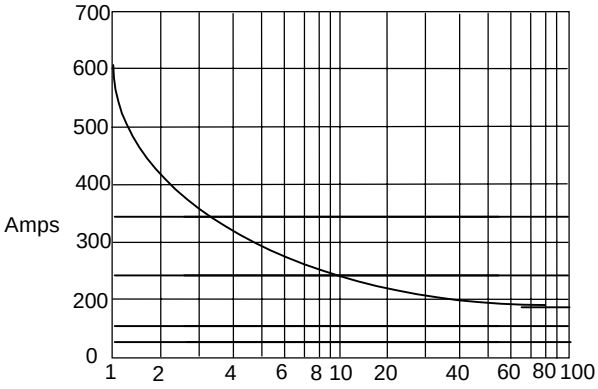
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

Figure 4
Typical Reverse Characteristics



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

Figure 5
Peak Forward Surge Current



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