



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

# MUR7005 THRU MUR7060

## Features

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

## Maximum Ratings

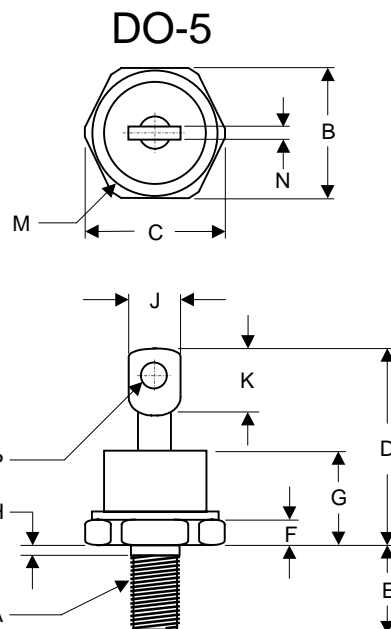
- Operating Temperature: -55°C to +175°C
- Storage Temperature: -55°C to +175°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR7005	50V	35V	50V
MUR7010	100V	70V	100V
MUR7020	200V	40V	200V
MUR7040	400V	280V	400V
MUR7060	600V	420V	600V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	70 A	$T_C = 135^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	1000A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 7005-7020 7040 7060	$V_F$	0.975V 1.25 V 1.35 V	$I_{FM} = 70\text{A};$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	50µA 6mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time 7005-7020 7040 7060	$T_{rr}$	60ns 75ns 90ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$
Typical Junction Capacitance 7005-7020 7040 7060	$C_J$	575pF 300pF 275pF	Measured at 1.0MHz, $V_R=10\text{V}$

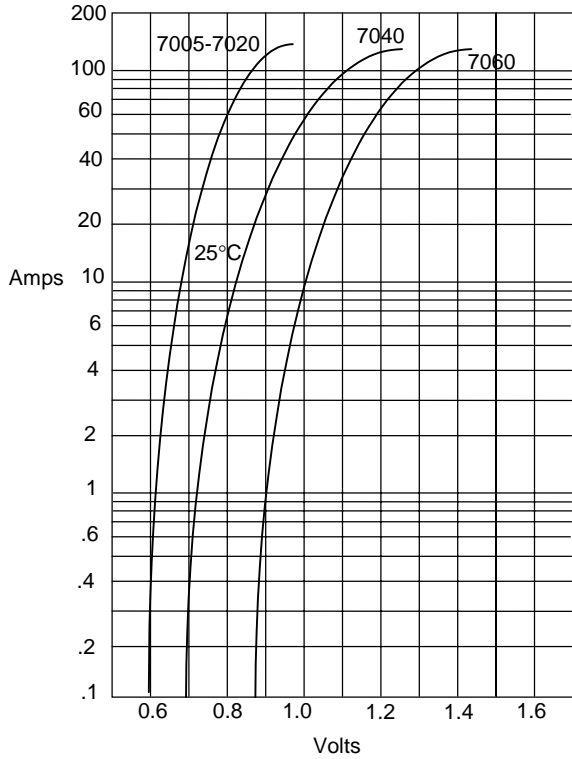
## 70 Amp Supre Fast Recovery Rectifier 50 to 600 Volts



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1/4-28	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	∅

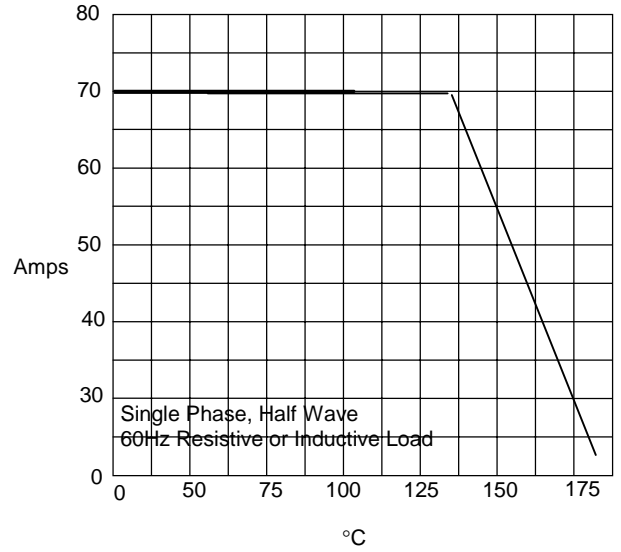
\*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

Figure 1  
Typical Forward Characteristics



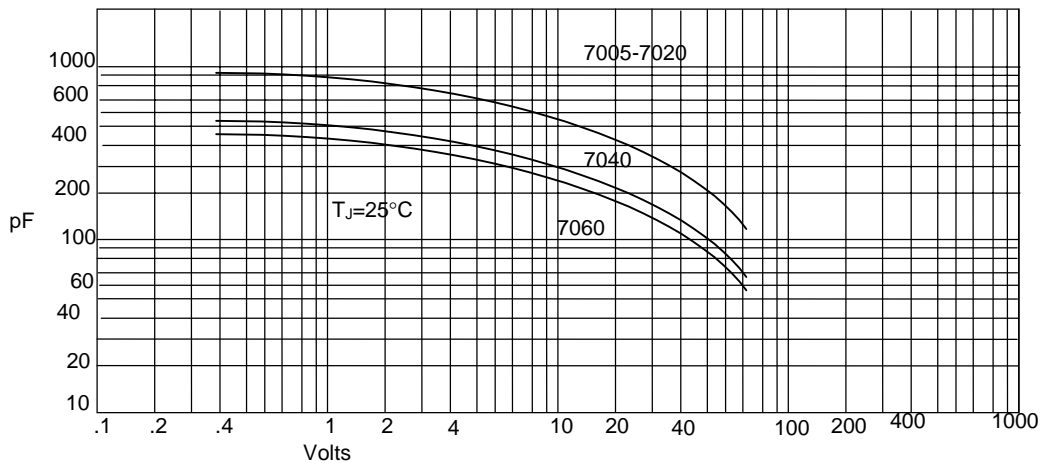
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

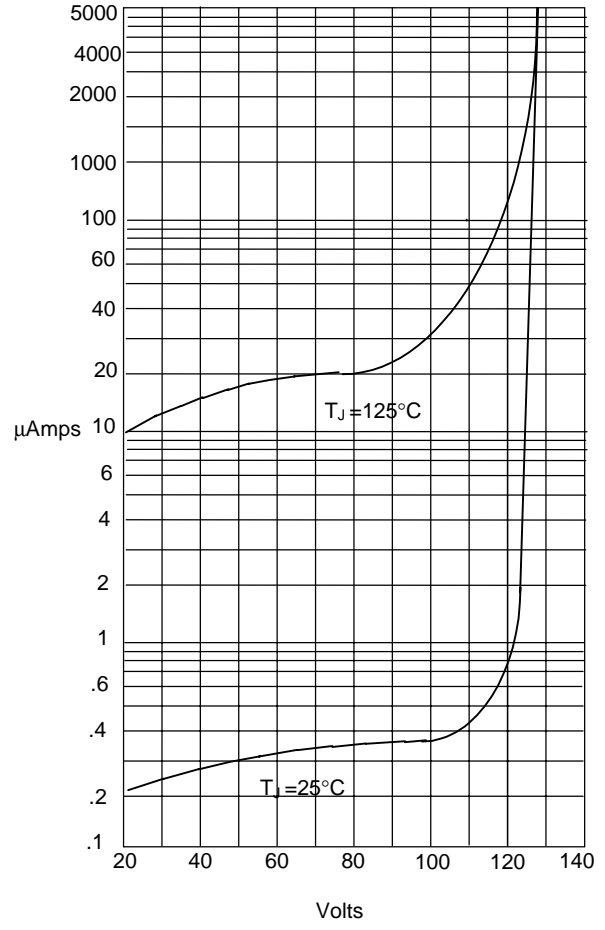
Figure 3  
Junction Capacitance



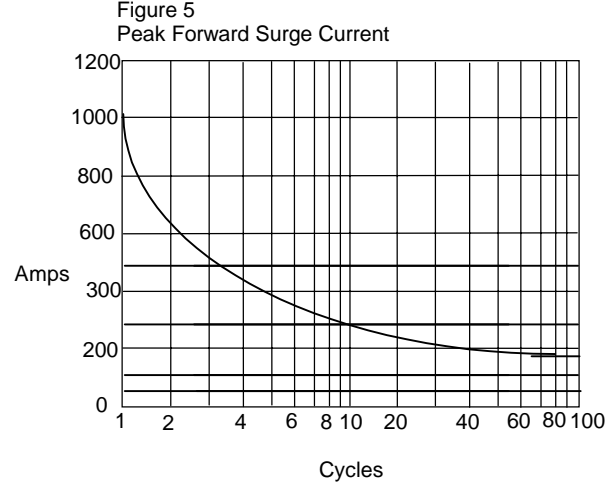
Junction Capacitance - pF versus  
Reverse Voltage - Volts



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