



Micro Commercial Components  
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# MUR20005CT THRU MUR20060CT

## Features

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

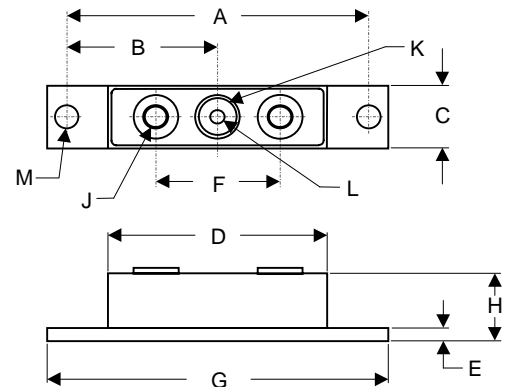
## 200 Amp Supre Fast Recovery Rectifier 50 to 600 Volts

## 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
MUR20005CT	50V	35V	50V
MUR20010CT	100V	70V	100V
MUR20020CT	200V	40V	200V
MUR20040CT	400V	280V	400V
MUR20060CT	600V	420V	600V

## FULL PACK



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	200 A	$T_C = 135^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	800A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 20005CT-20020CT 20040CT-20060CT	$V_F$	1.25V 1.75V	$I_{FM} = 100.0\text{A};$ $T_J = 25^\circ\text{C}$
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 20005CT-20020CT 20040CT 20060CT	$T_{rr}$	60ns 75ns 90ns	$I_F = 0.5\text{A}, I_R = 1.0\text{A},$ $I_{rr} = 0.25\text{A}$
Typical Junction Capacitance 20005CT-20020CT 20040CT 20060CT	$C_J$	575pF 300pF 275pF	Measured at 1.0MHz, $V_R = 10\text{V}$

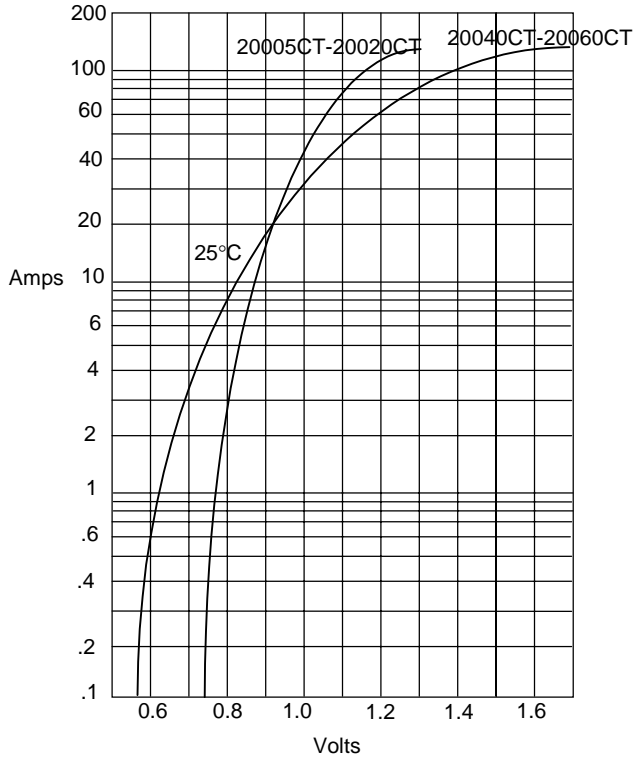
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	3.150	NOM	80.01	NOM	
B	1.565	1.585	39.75	40.26	
C	.700	.800	17.78	20.32	
D	2.400	2.500	60.96	63.50	
E	.119	.132	3.02	3.35	
F	1.375	REF	34.92	REF	
G	3.550	3.650	90.17	92.71	
H	.580	.620	14.73	15.75	
J	1/4 -20 UNF		FULL		
K	.380	.410	9.65	10.41	∅
L	.185	.195	4.70	4.95	∅
M	.275	.295	6.99	7.49	∅

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

# MUR20005CT thru MUR20060CT

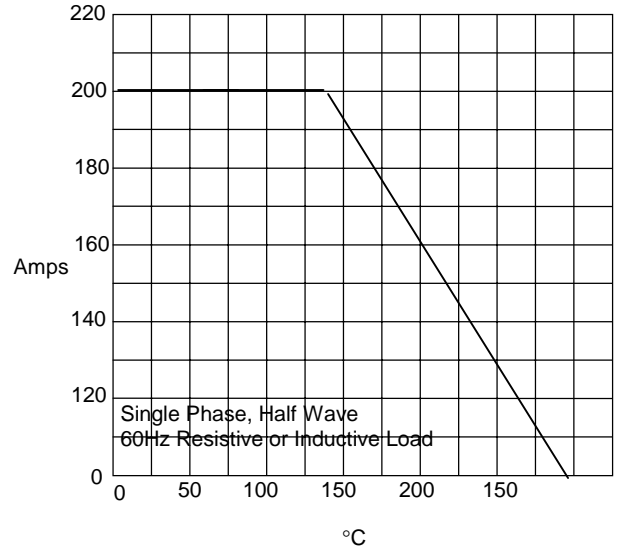


Figure 1  
Typical Forward Characteristics



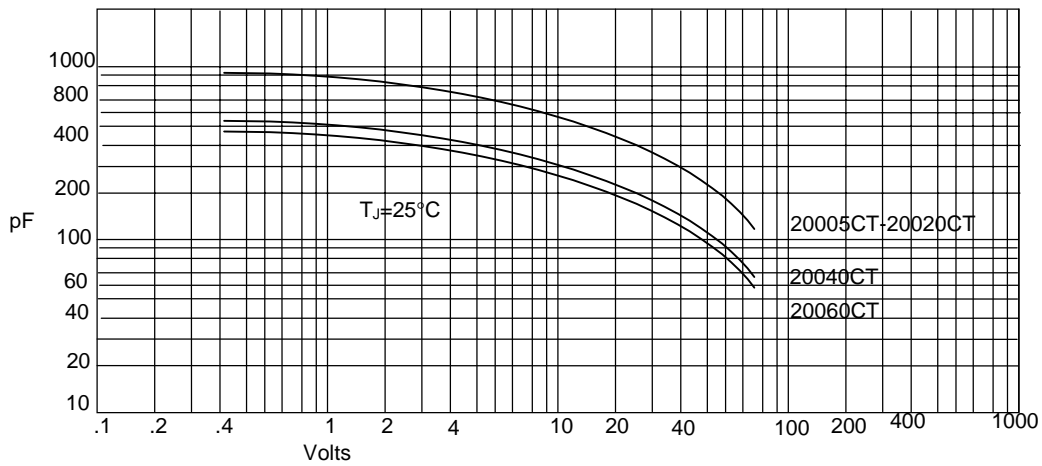
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

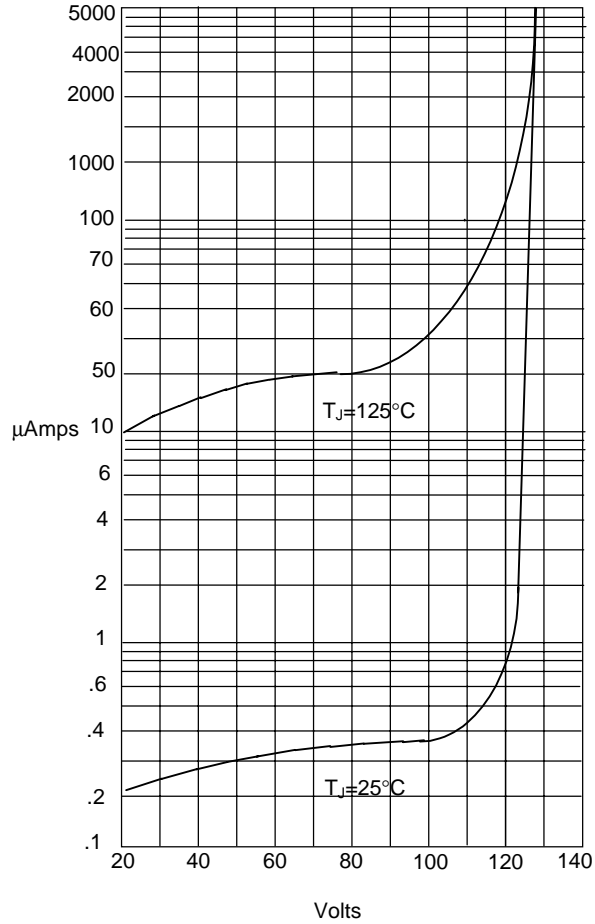
Figure 3  
Junction Capacitance



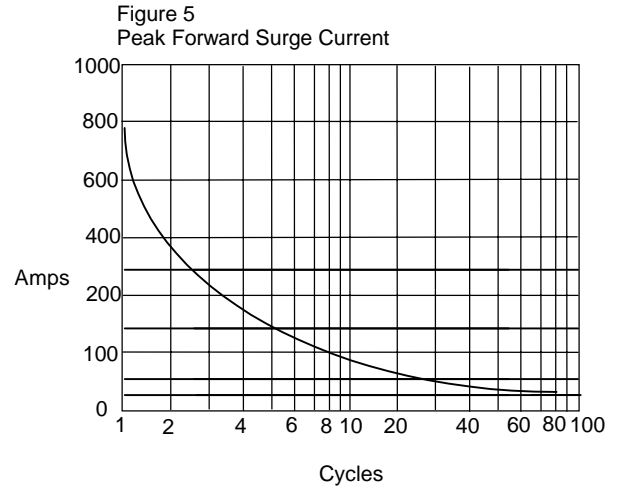
Junction Capacitance - pF versus  
Reverse Voltage - Volts



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