



MUR3005PT THRU MUR3060PT

Features

- High Surge Capability
- Low Forward Voltage Drop
- High Current Capability
- Super Fast Switching Speed For High Efficiency

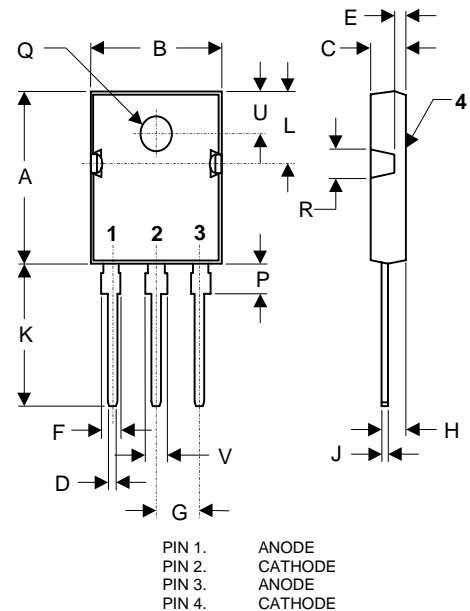
Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR3005PT	50V	35V	50V
MUR3010PT	100V	70V	100V
MUR3020PT	200V	140V	200V
MUR3040PT	400V	280V	400V
MUR3060PT	600V	420V	600V

**30 Amp
Super Fast Recovery
Rectifier
200 to 600 Volts**

TO-247



Electrical Characteristics @ 25°C Unless Otherwise Specified

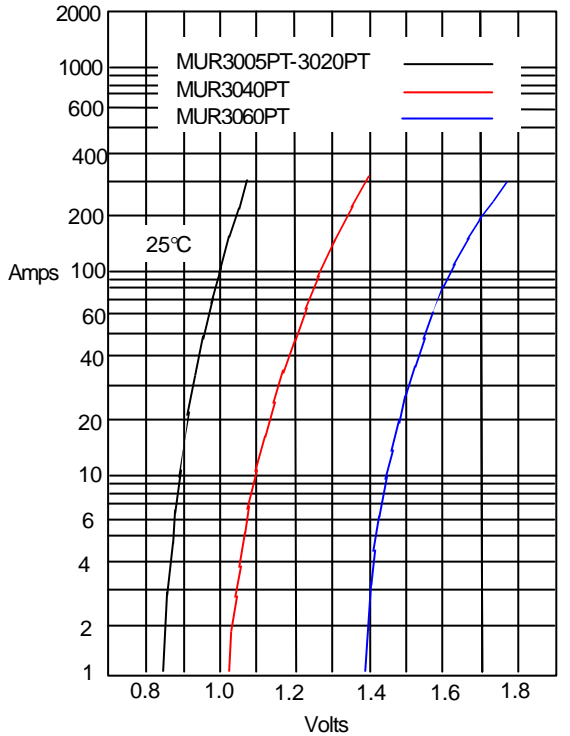
Average Forward Current	$I_{F(AV)}$	30 A	$T_C = 100^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	300A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.05V 1.30V 1.70V	$I_{FM} = 15.0\text{A};$ $T_C = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 μA 50 μA	$T_C = 25^\circ\text{C}$ $T_C = 125^\circ\text{C}$
Maximum Reverse Recovery Time	T_{rr}	50ns 80ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$

*Pulse Test: Pulse Width 300 μsec , Duty Cycle 1%

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.803	.823	20.40	20.90	
B	.608	.628	15.44	15.95	
C	.185	.205	4.70	5.21	
D	.043	.051	1.09	1.30	
E	.059	.064	1.50	1.63	
F	.071	.086	1.80	2.18	
G	.215	BSC	5.45	BSC	
H	.101	.130	2.56	2.87	
J	.019	.027	0.48	0.68	
K	.613	.633	15.57	16.08	
L	.286	.295	7.26	7.50	
P	.122	.133	3.10	3.38	
Q	.138	.145	3.50	3.70	∅
R	.130	.150	3.30	3.80	
U	.209	BSC	5.30	BSC	
V	.120	.134	3.05	3.40	

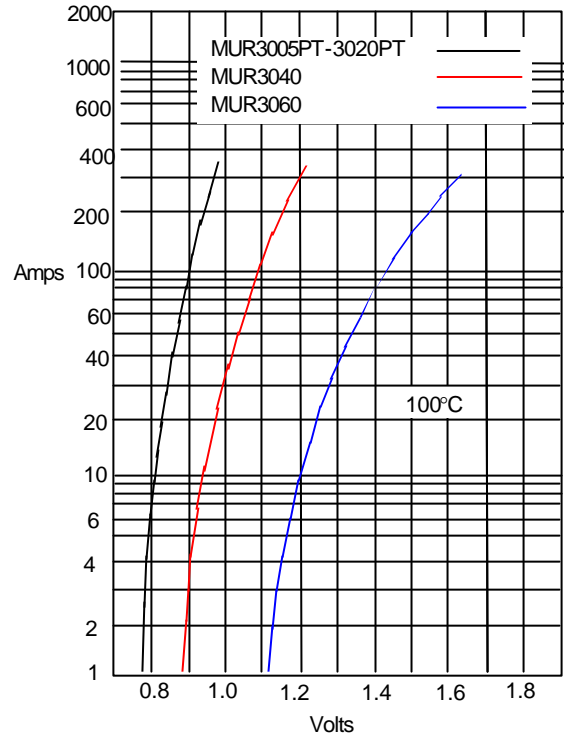
MUR3005PT thru MUR3060PT

Figure 1
Typical Forward Characteristics @ $T_J = 25^\circ\text{C}$



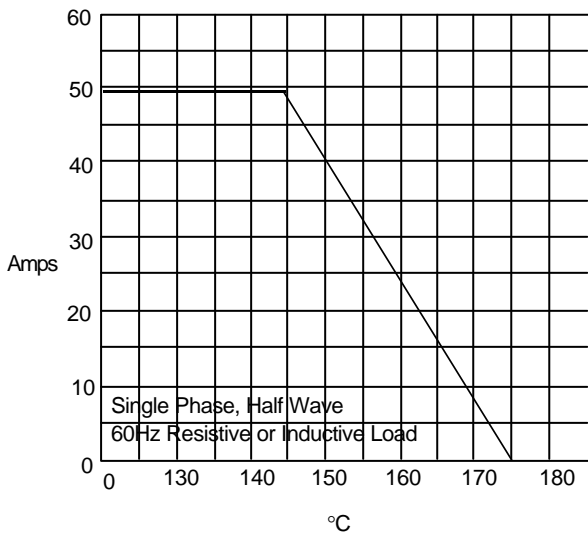
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Forward Characteristics @ $T_J = 100^\circ\text{C}$



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

Figure 3
Forward Derating Curve

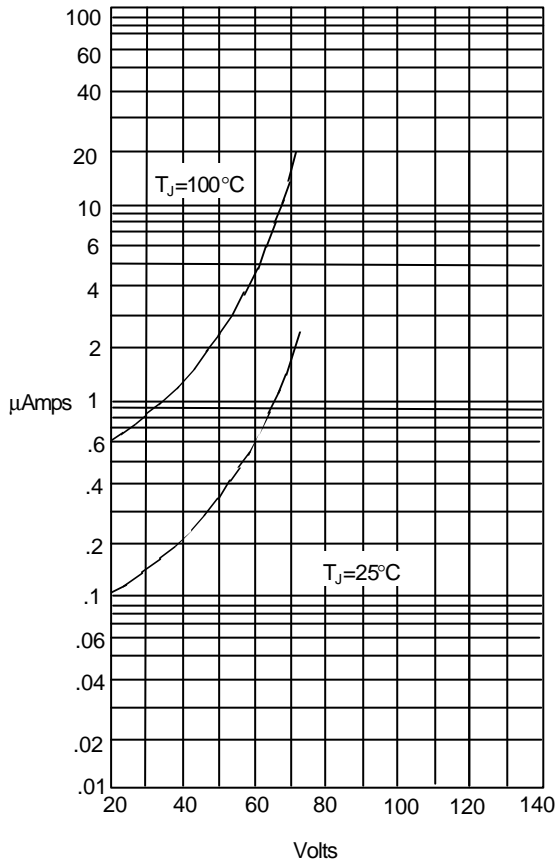


Average Forward Rectified Current Per Leg - Amperes *versus*
Case Temperature - °C



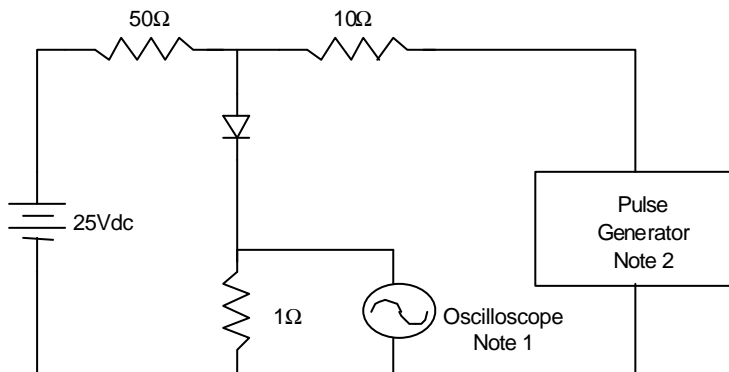
MUR3005PT thru MUR3060PT

Figure 4
Typical Reverse Characteristics



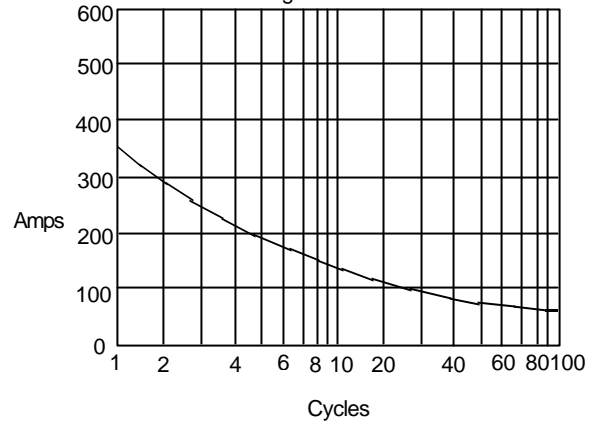
Instantaneous Reverse Leakage Current - MicroAmperes
versus

Figure 7
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

Figure 5
Peak Forward Surge Current



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

