



Micro Commercial Components



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# MUR105GP THRU MUR160GP

## 1.0 Amp Glass Passivated Super Fast Recovery Rectifier 50 to 600 Volts

### Features

- Super Fast Switching Speed For High Efficiency
- Marking : Type Number
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

### Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

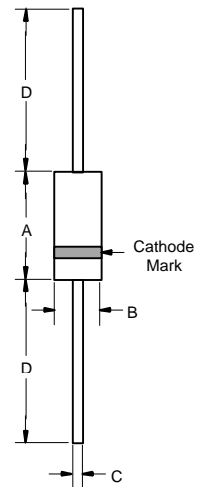
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR105GP	50V	35V	50V
MUR110GP	100V	70V	100V
MUR115GP	150V	105V	150V
MUR120GP	200V	140V	200V
MUR140GP	400V	280V	400V
MUR160GP	600V	420V	600V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	$T_A = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	25A	8.3ms, half sine
Maximum Instantaneous Forward Voltage MUR105GP-115GP MUR120GP-160GP	$V_F$	.97V 1.35V	$I_{FM} = 1.0A$ ; $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu$ A 50 $\mu$ A	$T_A = 25^\circ\text{C}$ $T_A = 150^\circ\text{C}$
Maximum Reverse Recovery Time MUR105GP-140GP MUR160GP	$T_{rr}$	45ns 60ns	$I_F=0.5A$ , $I_R=1.0A$ , $I_{rr}=0.25A$
Typical Junction Capacitance MUR105GP-115GP MUR120GP-160GP	$C_J$	15pF 10pF	Measured at 1.0MHz, $V_R=4.0V$

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

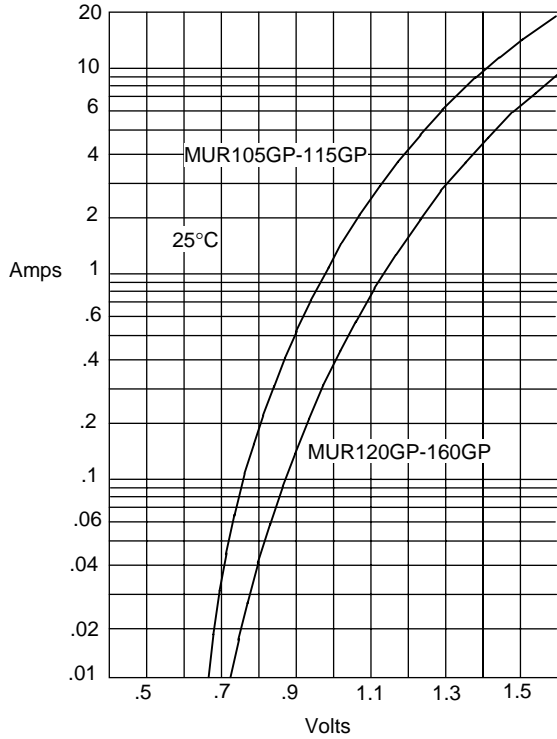
### DO-41



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	MIN .166	MAX .205	MIN 4.10	MAX 5.20	
B	MIN .080	MAX .107	MIN 2.00	MAX 2.70	
C	MIN .028	MAX .034	MIN .70	MAX .90	
D	MIN 1.000	MAX ---	MIN 25.40	MAX ---	

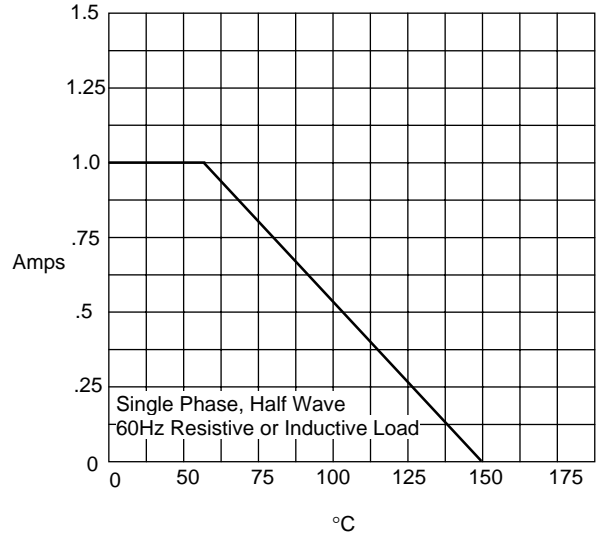
# MUR105GP thru MUR160GP

Figure 1  
Typical Forward Characteristics



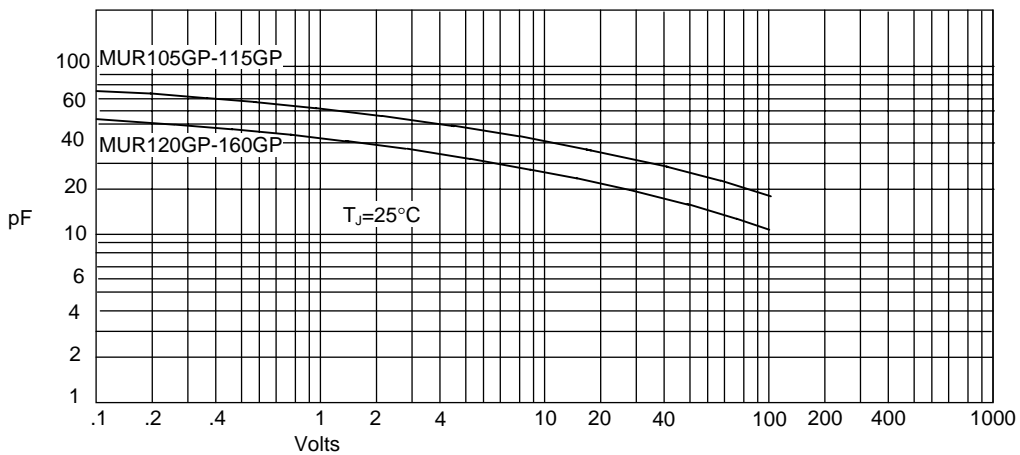
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



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

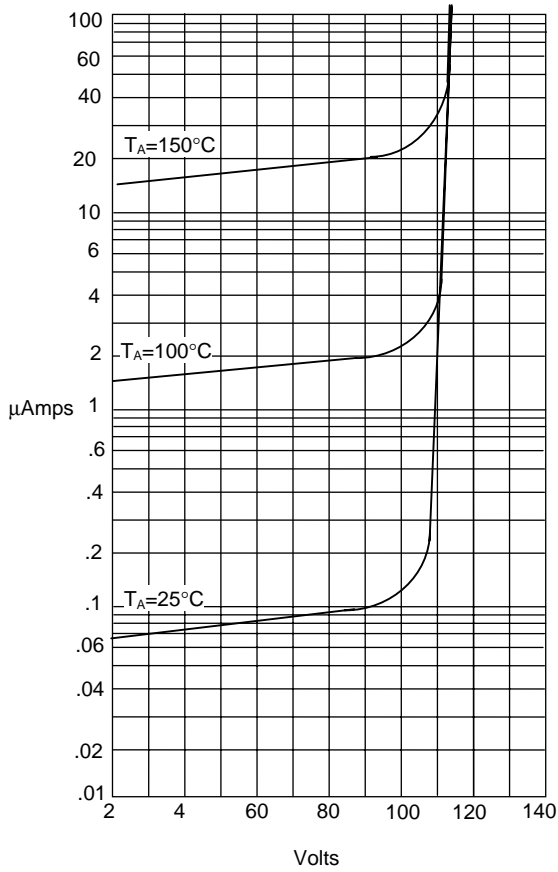
Figure 3  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

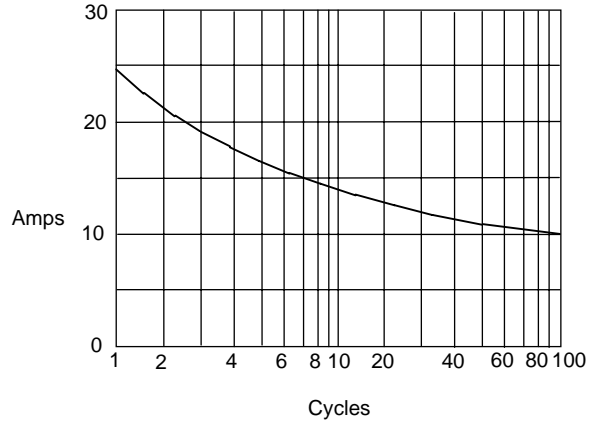
# MUR105GP thru MUR160GP

Figure 4  
Typical Reverse Characteristics



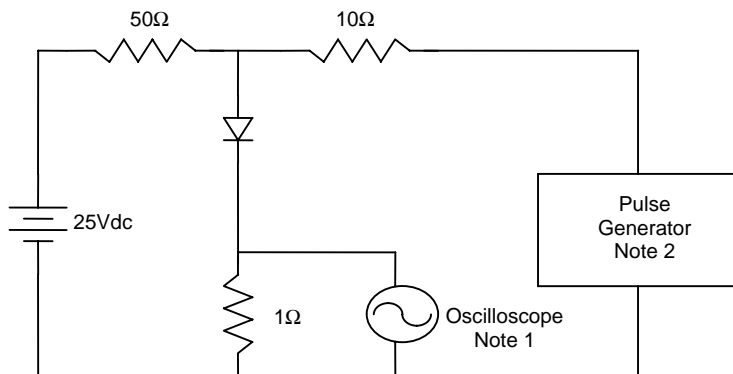
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current

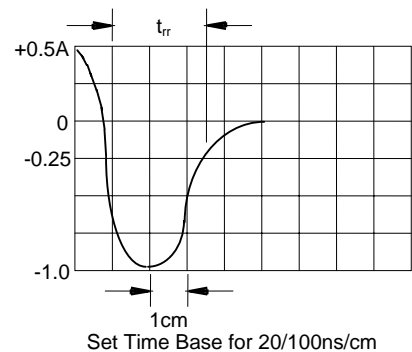


Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

Figure 6  
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



Set Time Base for 20/100ns/cm



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### Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk: 50Kpcs/Carton

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