

**Micro Commercial Components** 

ROHS

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# MUR105 THRU MUR1100

### **Features**

- Super Fast Switching Speed For High Efficiency
- Marking:TypeNumber
- 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: -50°C to +150°C
- Storage Temperature: -50°C to +150°C

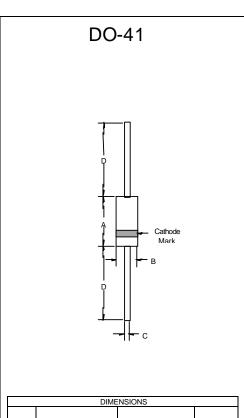
MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR105	50V	35V	50V
MUR110	100V	70V	100V
MUR115	150V	105V	150V
MUR120	200V	140V	200V
MUR140	400V	280V	400V
MUR160	600V	420V	600V
MUR180	800V	560V	800V
MUR1100	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I <sub>F(AV)</sub>	1 A	$T_A = 55^{\circ}C$
Peak Forward Surge Current	I <sub>FSM</sub>	35A	8.3ms, half sine
Maximum Instantaneous Forward Voltage			
MUR105-115 MUR120-160 MUR180-1100	$V_{F}$	.975V 1.35V 1.75V	I <sub>FM</sub> = 1.0A; T <sub>A</sub> = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5μΑ 50μΑ	T <sub>A</sub> = 25°C T <sub>A</sub> = 150°C
Maximum Reverse Recovery Time MUR105-120 MUR140-160 MUR180-1100	Trr	45ns 60ns 75ns	l=0.5A, l <sub>R</sub> =1.0A, l <sub>r</sub> =0.25A
Typical Junction Capacitance	CJ	20pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

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

# 1 Amp Super Fast Recovery Rectifier 50 to 1000 Volts



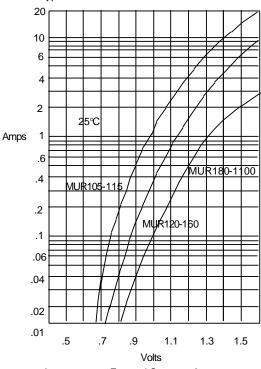
DIMENSIONS						
	INCHES		MM			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.166	.205	4.10	5.20		
В	.080	.107	2.00	2.70		
С	.028	.034	.70	.90		
D	1.000		25.40			

## MUR105 thru MUR1100

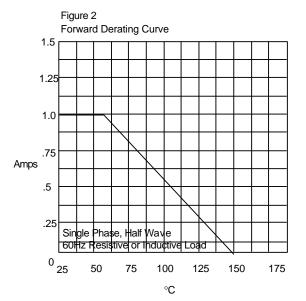


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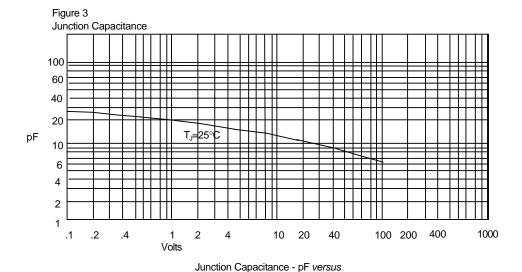
Figure 1
Typical Forward Characteristics



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



Average Forward Rectified Current - Amperes versus Ambient Temperature -  $^{\circ}\text{C}$ 



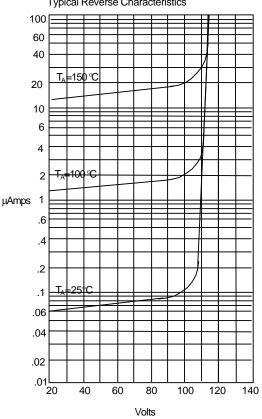
Reverse Voltage - Volts

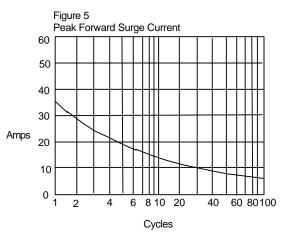
## MUR105 thru MUR110



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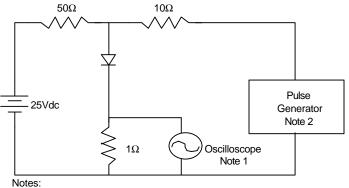




Peak Forward Surge Current - Amperes *versus* Number Of Cycles At 60Hz - Cycles

Instantaneous Reverse Leakage Current - MicroAmperes *versus* 

Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram



-1.0

Set Time Base for 20/100ns/cm

1. Rise Time = 7ns max.

Input impedance = 1 megohm, 22pF

2. Rise Time = 10ns max.

Source impedance = 50 ohms

3. Resistors are non-inductive



### **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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