

### **Features**

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- · Glass Passivated Chip
- · Super Fast Switching Time For Hight Efficiency
- · High Surge Capacity
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"

# **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistence: 2.0°C/W Junction to Case
- Thermal Resistence: 60°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR1005	MUR1005	50V	35V	50V
MUR1010	MUR1010	100V	70V	100V
MUR1020	MUR1020	200V	140V	200V
MUR1040	MUR1040	400V	280V	400V
MUR1060	MUR1060	600V	420V	600V

# Electrical Characteristics @ 25°C Unless Otherwise Specified

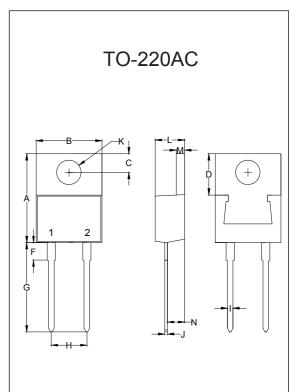
Average Forward Current	I <sub>F(AV)</sub>	10A	T <sub>C</sub> =100°C
Peak Forward Surge Current	I <sub>FSM</sub>	100A	8.3ms,Half Sine
Maximum Forward Voltage Drop Per Element MUR1005-MUR1020 MUR1040-MUR1060	V <sub>F</sub>	1.3V 1.5V	I <sub>FM</sub> =10A; T <sub>J</sub> =25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5.0μA 250μA	T <sub>J</sub> =25°C; T <sub>J</sub> =125°C
Maximum Reverse Recovery Time MUR1005-MUR1020 MUR1040-MUR1060	T <sub>RR</sub>	35ns 50ns	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A; Irr=0.25A
Typical Junction Capacitance	СЈ	160pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

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

### Internal Structure



# 10 Amp Super Fast Glass Passivated Rectifier 50 to 600 Volts



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOTE
Α	0.560	0.625	14.22	15.88	
В	0.380	0.420	9.65	10.67	
С	0.100	0.135	2.54	3.43	
D	0.230	0.270	5.84	6.86	
F		0.250		6.35	
G	0.500	0.580	12.70	14.73	
Н	0.190	0.210	4.83	5.33	
I	0.020	0.045	0.51	1.14	
J	0.012	0.025	0.30	0.64	
K	0.139	0.161	3.53	4.09	Ф
L	0.140	0.190	3.56	4.83	
M	0.045	0.055	1.14	1.40	
N	0.080	0.115	2.03	2.92	



## **Curve Characteristics**

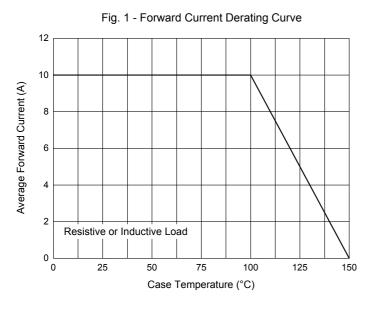


Fig. 3 - Typical Instantaneous Forward Characteristics

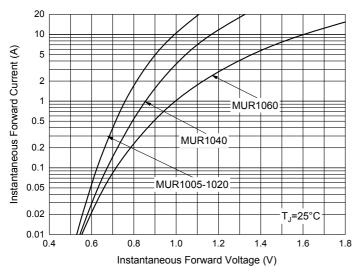


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

150

125

100

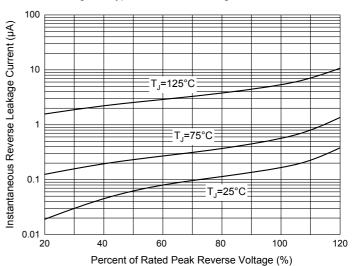
75

8.3 ms Single Half Sine-Wave

0

Number of Cycles at 60 Hz

Fig. 4 - Typical Reverse Leakage Characteristics





## **Ordering Information**

Device	Packing	
Part Number-BP	Bulk:50pcs/Tube,1Kpcs/Box,5Kpcs/Carton	

Note: Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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