

### Features

- Super Fast Switching For High Efficiency
- High Junction Temperature Capability
- Low Reverse Leakage
- High Forward Surge Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Planar Structure Die and Soft Recovery Characteristics

### Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 1°C/W Junction to Case
- Typical Thermal Resistance: 50°C/W Junction to Ambient

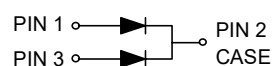
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR6060PTH	MUR6060PTH	600V	420V	600V

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

Average Rectified Forward Current	$I_{F(AV)}$	60A	$T_C=80^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	300A	8.3ms, Half Sine
Instantaneous Forward Voltage	$V_F$	1.45V(Typ.) 1.60V(Max.) 1.45V(Max.)	$I_{FM}=30A; T_J=25^\circ\text{C}$ $I_{FM}=30A; T_J=25^\circ\text{C}$ $I_{FM}=30A; T_J=150^\circ\text{C}$
Reverse Current At Rated DC Blocking Voltage	$I_R$	5 $\mu\text{A}$ (Max.) 200 $\mu\text{A}$ (Max.)	$T_J=25^\circ\text{C}$ $T_J=150^\circ\text{C}$
Avalanche Energy	$E_{AS}$	385mJ	$T_P=40\mu\text{s}, L=15\text{mH}, T_J=25^\circ\text{C}$
Reverse Recovery Time	$t_{rr}$	38ns(Typ.) 50ns(Max.) 112ns(Typ.) 175ns(Typ.)	$I_F=0.5A; I_R=1.0A; I_{RR}=0.25A$ $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$
Peak recovery current	$I_{RRM}$	5.5A(Typ.) 13A(Typ.)	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$ $I_F=30A$ $di_F/dt=200A/\mu\text{s}$ $V_R=200V$
Reverse recovery charge	$Q_{rr}$	300nC(Typ.) 1150nC(Typ.)	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$

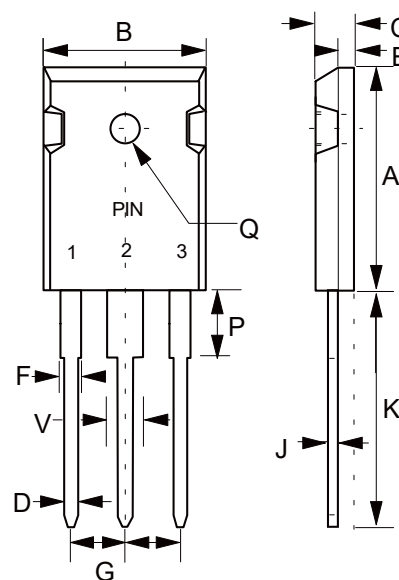
Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

### Internal Structure



**\* \$ Amp  
Super Fast  
Recovery Rectifier  
\* \$\$ Volts**

### TO-247



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.787	0.866	20.00	22.00	
B	0.598	0.638	15.20	16.20	
C	0.185	0.208	4.70	5.30	
D	0.035	0.059	0.90	1.50	
E	0.059	0.094	1.50	2.40	
F	0.067	0.091	1.70	2.30	
J	0.019	0.031	0.48	0.80	
K	0.748	0.833	19.00	21.15	
P	0.122	0.189	3.10	4.80	
Q	0.118	0.150	3.00	3.80	$\phi$
V	0.106	0.134	2.70	3.40	
G	0.197	0.224	5.00	5.70	

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

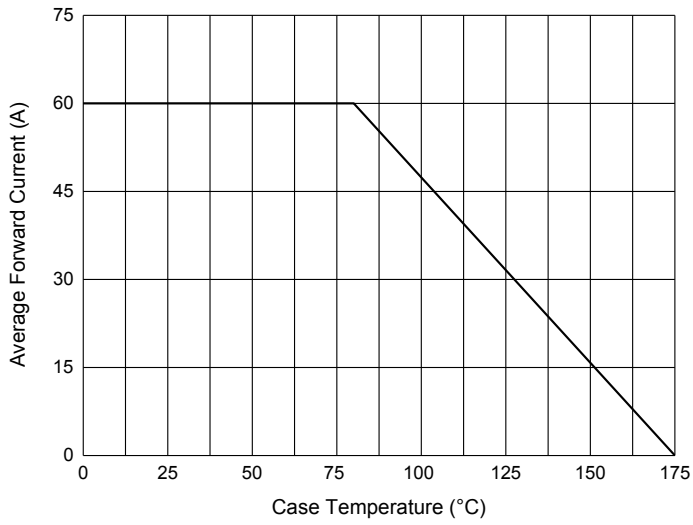


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

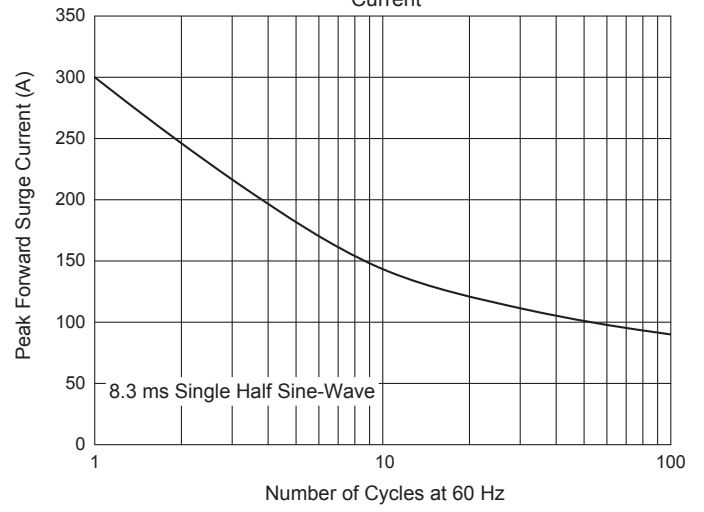


Fig. 3 - Typical Instantaneous Forward Characteristics

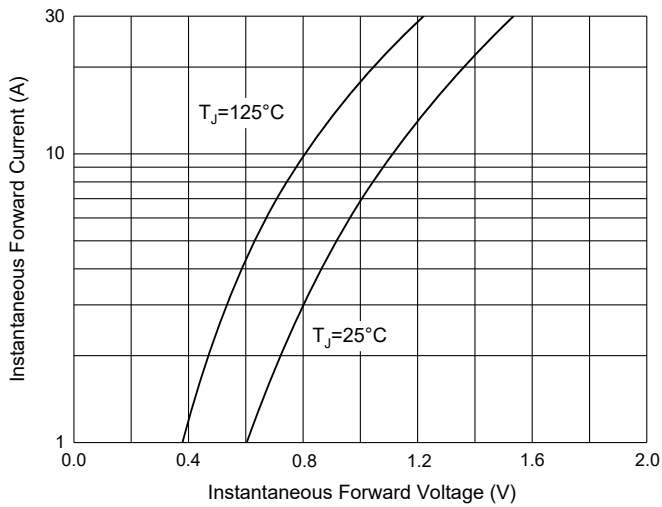
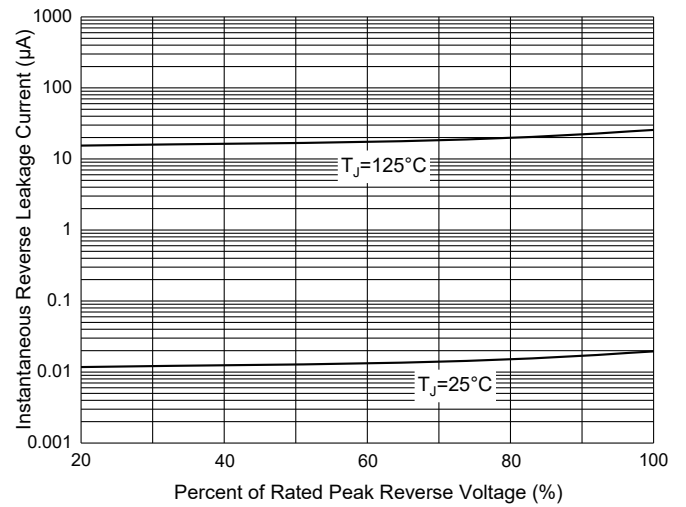


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk:30pcs/Tube,360pcs/Box,1.8Kpcs/Carton

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

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