

### **Features**

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Super Fast Switching For High Efficiency
- Low Reverse Leakage
- Epoxy Meets UL 94 V-0 Flammability Rating
- 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 +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 0.5°C/W Junction to Case

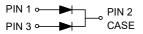
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR3040PT	MUR3040PT	400V	280V	400V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

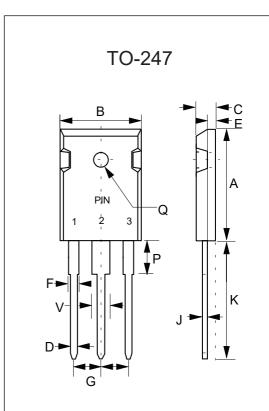
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% Duty Cycle	I <sub>F(AV)</sub>	30A	T <sub>C</sub> =110°C
Peak Forward Surge Current	I <sub>FSM</sub>	140A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	1.23V(Typ) 1.45V(Max) 1.10V(Max)	I <sub>F</sub> =15A;T <sub>J</sub> =25°C I <sub>F</sub> =15A;T <sub>J</sub> =25°C I <sub>F</sub> =15A;T <sub>J</sub> =125°C
Maximum Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	0.01mA 0.1mA	T <sub>J</sub> =25°C; T <sub>J</sub> =125°C
Maximum Reverse Recovery Time	T <sub>RR</sub>	45ns	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A, I <sub>RR</sub> =0.25A

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

#### Internal Structure



# 30 Amp Super Fast Recovery Rectifier 400 Volts



DIMENSIONS							
DIM	INCHES		MM		NOTE		
DIIVI	MIN	MAX	MIN	MAX	NOTE		
Α	0.787	0.866	20.00	22.00			
В	0.598	0.638	15.20	16.20			
С	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			
Р	0.122	0.189	3.10	4.80			
Q	0.118	0.150	3.00	3.80	Ф		
V	0.106	0.134	2.70	3.40			
G	0.197	0.224	5.00	5.70			

1.8

2.0



## **Curve Characteristics**

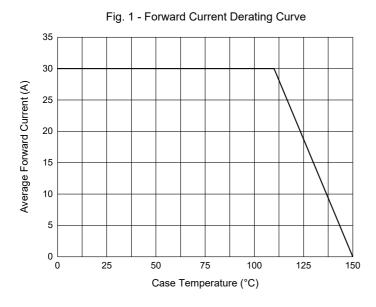
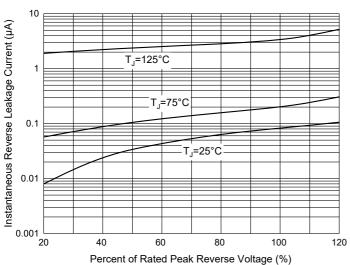


Fig. 3 - Typical Reverse Leakage Characteristics



50 20 Instantaneous Forward Current (A) 10 5 2 0.5 0.2 T<sub>J</sub>=25°C 0.1 <del>|</del> 0.4

0.6

8.0

1.0

1.2

Instantaneous Forward Voltage (V)

Fig. 2 - Typical Instantaneous Forward Characteristics

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# **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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