

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
- 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: 0.5°C/W Junction to Case

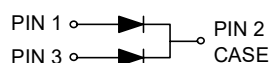
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MUR2040PT	MUR2040PT	400V	280V	400V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% Duty Cycle	$I_{F(AV)}$	20A	$T_C=130^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	160A	8.3ms, Half Sine
Instantaneous Forward Voltage	V_F	1.13V(Typ) 1.40V(Max) 1.20V(Max)	$I_{FM}=10A, T_J=25^\circ\text{C}$ $I_{FM}=10A, T_J=25^\circ\text{C}$ $I_{FM}=10A, T_J=125^\circ\text{C}$
Maximum Reverse Current At Rated DC Blocking Voltage	I_R	10 μA 0.10mA	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$
Maximum Reverse Recovery Time	t_{rr}	35ns	$I_F=0.5A; I_R=1.0A,$ $I_{RR}=0.25A$

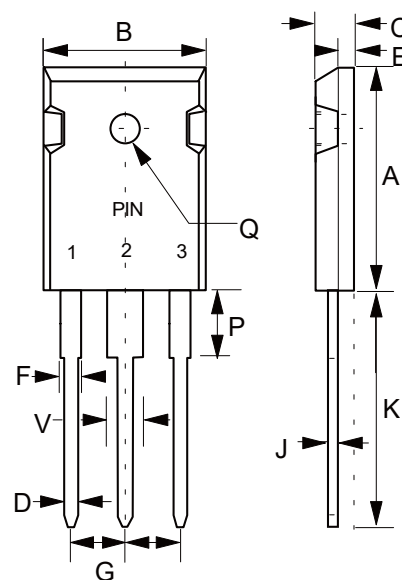
Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

Internal Structure



20 Amp Super Fast Recovery Rectifier 400 Volts

TO-247



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	ϕ
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

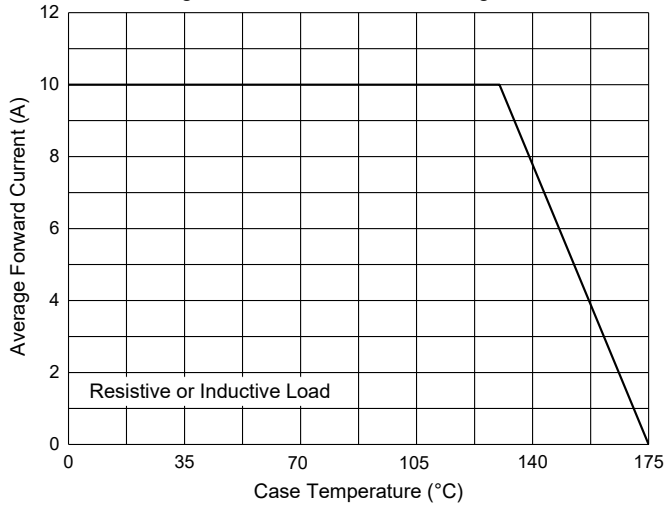


Fig. 2 - Typical Instantaneous Forward Characteristics

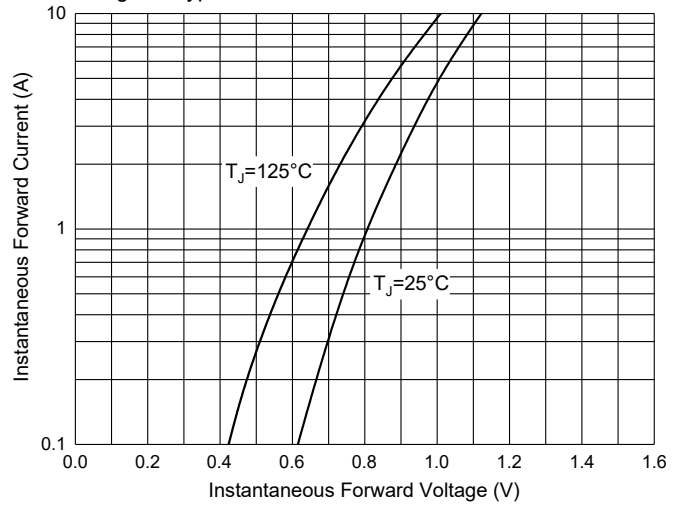
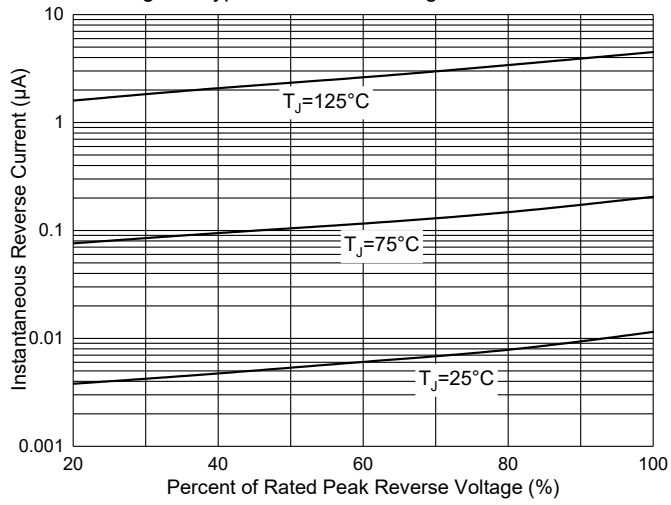


Fig. 3 - Typical Reverse Leakage Characteristics



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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