

## Features

- Halogen Free. "Green" Device (Note 1)
- High Surge Forward Current Capability
- Low Power Loss, High Efficiency
- Lead Free Finish/RoHS Compliant(Note 2)("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

## **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 60 °C/W Junction to Ambient
- Typical Thermal Resistance: 8.0 °C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR8U60	8U60	60V	42V	60V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

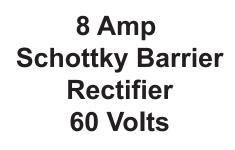
Average Forward Current		8A	T <sub>C</sub> = 120°C
Peak Forward Surge Current	I <sub>FSM</sub>	200A	8.3ms,Half Sine
Forward Voltage	V <sub>F</sub>	0.46V(Typ) 0.50V(Max) 0.43V(Typ) 0.47V(Max)	I <sub>F</sub> =8A T <sub>J</sub> =25°C I <sub>F</sub> =8A T <sub>J</sub> =125°C
Reverse Current	I <sub>R</sub>	0.2mA(Max) 100mA(Max)	V <sub>R</sub> =60; T <sub>J</sub> =25°C V <sub>R</sub> =60; T <sub>J</sub> =100°C
Reverse Breakdown Voltage	V <sub>BR</sub>	60V(Min)	I <sub>R</sub> =0.5mA
Current Squared Time	I <sup>2</sup> T	93 A²s	1ms≤t<8.3ms

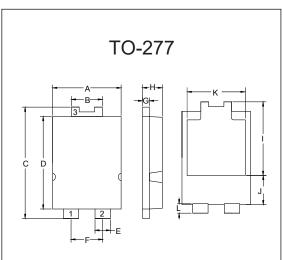
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

### **Internal Structure**

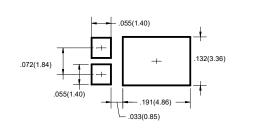
	OPIN 2
PIN 3 o 🖬	OF IN 2
HEAT SINK	• PIN 1





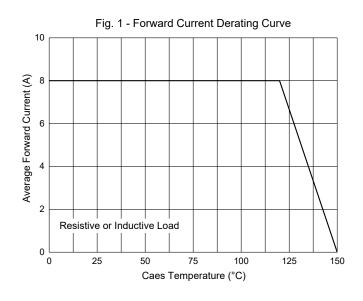
	DIMENSIONS				
DIM	INCHES		MM		NOTE
DIN	MIN	MAX	MIN	MAX	NOTE
Α	0.154	0.161	3.90	4.10	
В	0.067	0.075	1.70	1.90	
С	0.252	0.260	6.40	6.60	
D	0.209	0.217	5.30	5.50	
E	0.031	0.039	0.80	1.00	
F	0.071	0.075	1.80	1.90	
G	0.014	0.018	0.35	0.45	
Н	0.043	0.047	1.10	1.20	
I	0.161	0.177	4.10	4.50	
J	0.059	0.075	1.50	1.90	
К	0.114	0.134	2.90	3.40	
L	0.022	0.030	0.55	0.75	

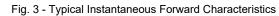
#### Suggested Solder Pad Layout

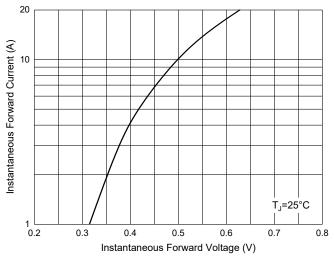




# **Curve Characteristics**







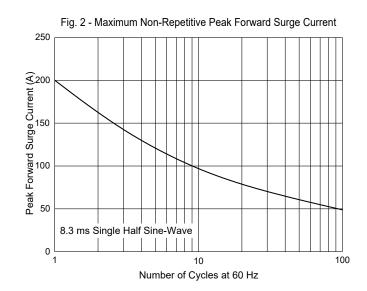
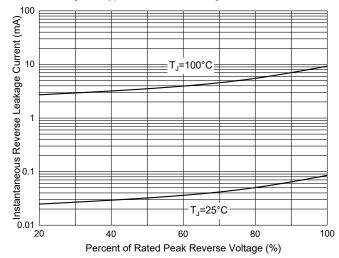


Fig. 4 - Typical Reverse Leakage Characteristics





# **Ordering Information**

Device	Packing
Part Number-TP	Tape&Reel: 4Kpcs/Reel

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