

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
- High Junction Temperature Capability

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 8.0 °C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum	Maximum DC Blocking Voltage	
MBR5U100H	5U100H	100V	70V	100V	

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I _{F(AV)}	5A	Tc = 145°C
Peak Forward Surge Current	I _{FSM}	240A	8.3ms,Half Sine
Forward Voltage	V _F	0.71V(Typ) 0.80V(Max) 0.60V(Typ) 0.68V(Max)	I _F =5A T _J =25⁰C I _F =5A T _J =125⁰C
Maximum Reverse Current At Rated DC Blocking Voltage	I _R	0.01mA 3mA	Tյ=25⁰C Tյ=125⁰C
Reverse Breakdown Voltage	V_{BR}	100V(Min)	I _R =0.5mA
Current Squared Time	I ² T	239 A ² s	1ms≤t<8.3ms T _J =25ºC
Typical Junction Capacitance	CJ	320pF	Measured at 1.0MHz, V _R =4.0V

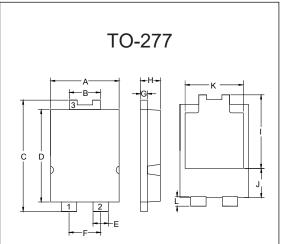
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

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

Internal Structure

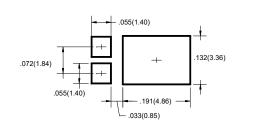
	• PIN 2
HEAT SINK	o PIN 1

5 Amp		
Schottky Barrier		
Rectifier		
100 Volts		



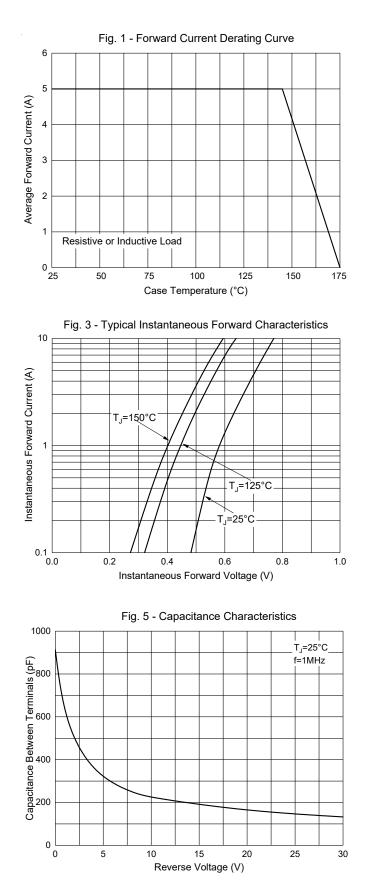
	DIMENSIONS				
DIM	INCHES		MM		NOTE
DIN	MIN	MAX	MIN	MAX	NOTE
Α	0.154	0.161	3.90	4.10	
В	0.067	0.075	1.70	1.90	
С	0.252	0.260	6.40	6.60	
D	0.209	0.217	5.30	5.50	
E	0.031	0.039	0.80	1.00	
F	0.071	0.075	1.80	1.90	
G	0.014	0.018	0.35	0.45	
Н	0.043	0.047	1.10	1.20	
I	0.161	0.177	4.10	4.50	
J	0.059	0.075	1.50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

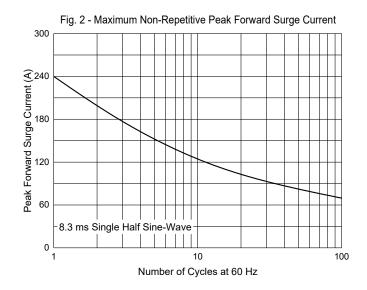
Suggested Solder Pad Layout

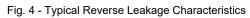


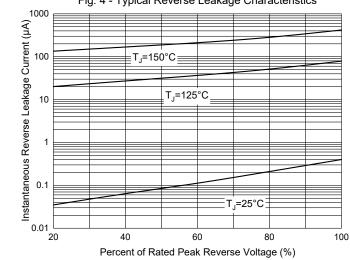


Curve Characteristics











Ordering Information

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

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