

Features

- Halogen Free. "Green" Device (Note 1)"
- AEC-Q101 Qualified
- Low Forward Voltage Drop
- Super Long Operating Life
- 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: 8 °C/W Junction to Case

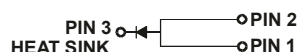
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR10U200HE3	10U200	200V	140V	200V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_c = 105^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	200A	8.3ms, Half Sine
Forward Voltage Drop	V_F	0.95V(Max.) 0.85V(Typ.) 0.85V(Max.)	$I_F=10\text{A}; T_J=25^\circ\text{C}$ $I_F=10\text{A}; T_J=25^\circ\text{C}$ $I_F=10\text{A}; T_J=125^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	100μA 20mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	C_J	160pF	Measured at 1.0MHz $V_R=4.0\text{V}$

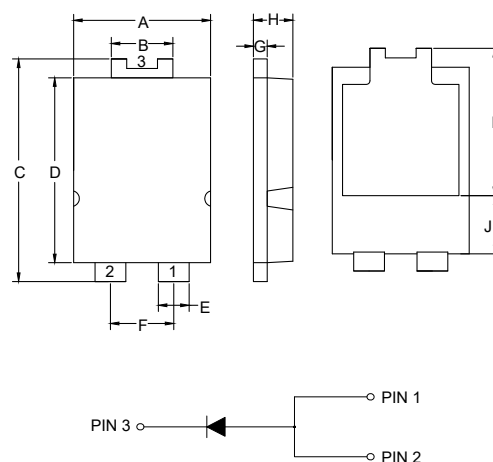
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

Internal Structure



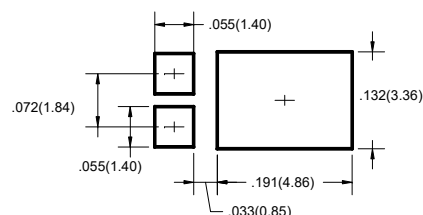
10 Amp Schottky Barrier Rectifier 200 Volts

TO-277



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.154	0.161	3.90	4.10	
B	0.067	0.075	1.70	1.90	
C	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	
H	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	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

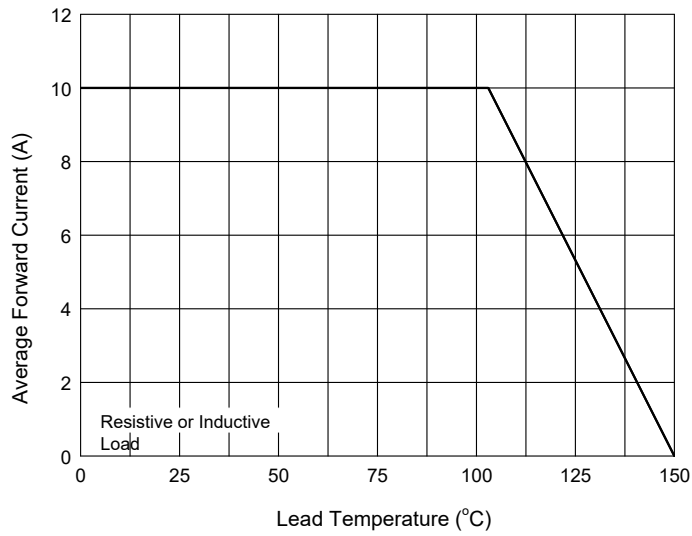


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

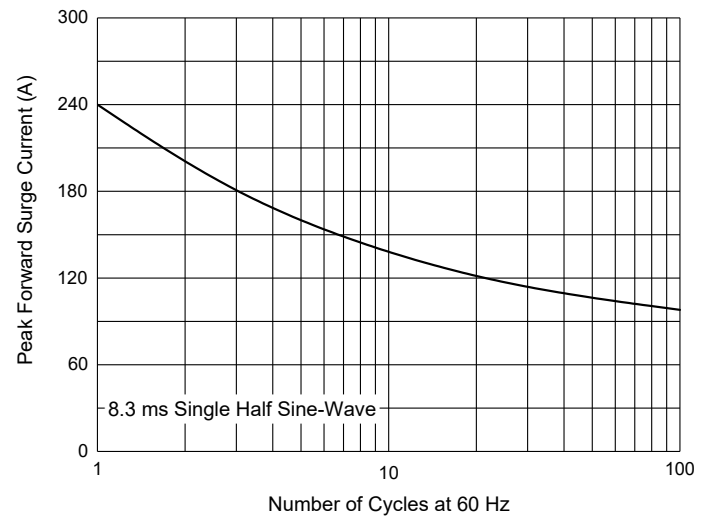


Fig. 3 - Typical Instantaneous Forward Characteristics

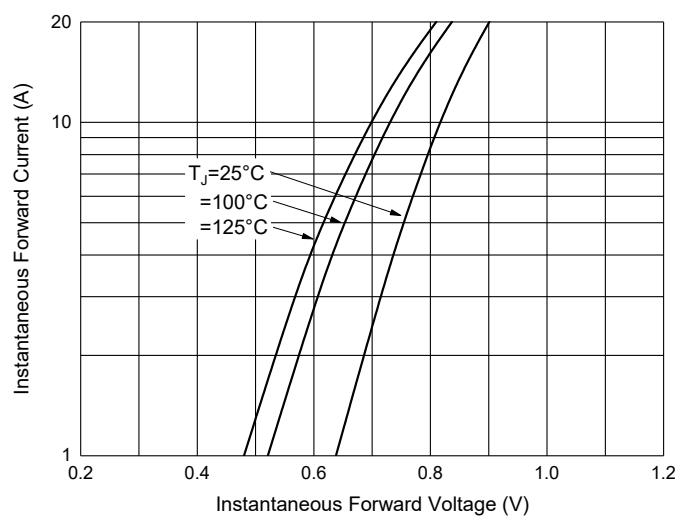
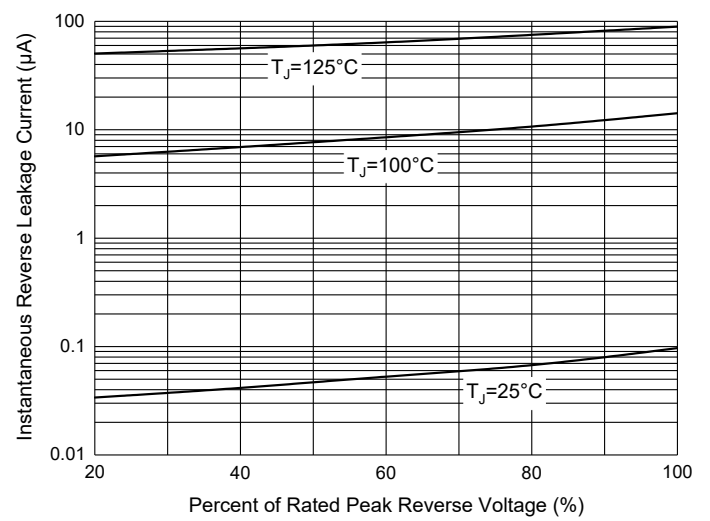


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
MBR10U200HE3-TP	Tape&Reel:4Kpcs/Reel

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