

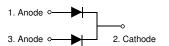
June 2009

# MBR20150CT Dual High Voltage Schottky Rectifier

### **Features**

- · Low Forward Voltage Drop
- · Low Power Loss and High Efficiency
- High Surge Capability
- · RoHS Compliant
- · Matte Tin(Sn) Lead Finish
- Terminal Leads Surface is Corrosion Resistant and can withstand to 260 °C
- Wave Soldering or per MIL-STD-750 Method 2026.
- · Dual common Cathode.





## **Absolute Maximum Ratings\*** T<sub>A</sub> = 25 ℃ unless otherwise noted

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	150	V
V <sub>R</sub>	Maximum DC Reverse Voltage	150	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, T <sub>C</sub> =120°C	10 (Per Leg) 20 (Per Device)	Α
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3mS Half Sine wave	150	А
T <sub>STG</sub>	Storage Temperature Range	-55 to + 150	°C
T <sub>J</sub>	Operating Junction Temperature	150	°C

<sup>\*</sup> These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

## Thermal Characteristics\* T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Max	Unit
$R_{ heta JC}$	Thermal Resistance, Junction to Case per Leg	1.5	°C/W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient per Leg	62.5	°C/W

<sup>\*</sup> MIL standard 883-1012 & JESD51-10

## **Electrical Characteristics\*** T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Test Co	ndition	Min.	Max.	Unit
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 150V V <sub>R</sub> = 150V	$T_C = 25 ^{\circ}\text{C}$ $T_C = 125 ^{\circ}\text{C}$		0.2 5	mA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =10A I <sub>F</sub> =10A I <sub>F</sub> =20A I <sub>F</sub> =20A	$T_{C} = 25 ^{\circ}\text{C}$ $T_{C} = 125 ^{\circ}\text{C}$ $T_{C} = 25 ^{\circ}\text{C}$ $T_{C} = 125 ^{\circ}\text{C}$		0.85 0.75 0.95 0.85	<b>V</b>

<sup>\*</sup> DC Item are tested by Pulse Test: Pulse Width < 300us, Duty Cycle < 2%

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## **Typical Performance Characteristics**

**Figure 1. Forward Current Characteristics** 

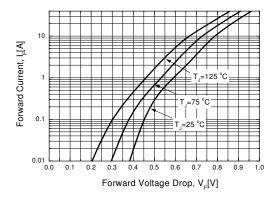
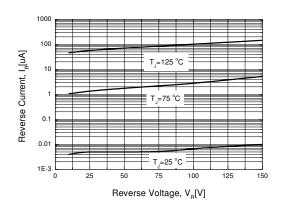


Figure 2. Reverse Leakage Current



**Figure 3. Junction Capacitance** 

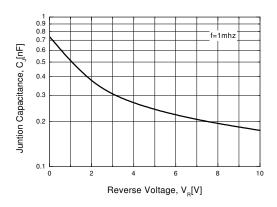
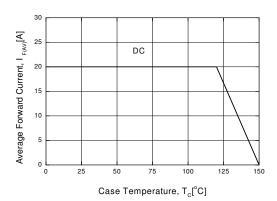
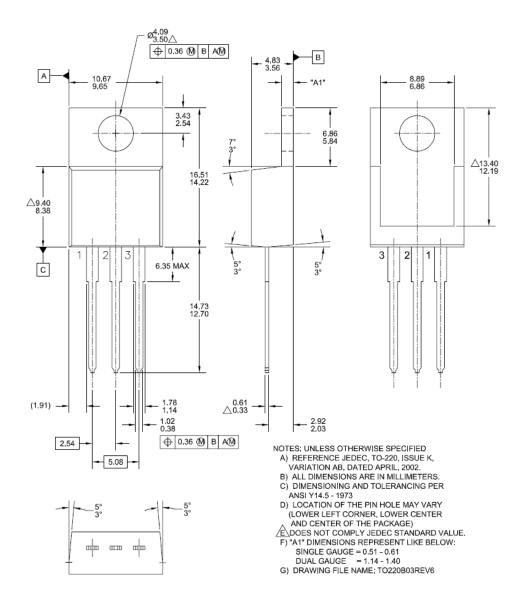


Figure 4. Power Derating



## **Physical Dimensions**

## **TO-220 (DUAL GAUGE)**



Dimensions in Millimeters





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Definition of Terms			
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