



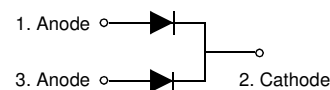
June 2009

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* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	150	V
V_R	Maximum DC Reverse Voltage	150	V
$I_{F(AV)}$	Average Rectified Forward Current, $T_C=120^\circ\text{C}$	10 (Per Leg) 20 (Per Device)	A
I_{FSM}	Peak Forward Surge Current, 8.3mS Half Sine wave	150	A
T_{STG}	Storage Temperature Range	-55 to + 150	$^\circ\text{C}$
T_J	Operating Junction Temperature	150	$^\circ\text{C}$

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics* $T_A = 25^\circ\text{C}$ unless otherwise noted

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

* MIL standard 883-1012 & JESD51-10

Electrical Characteristics* $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Unit
I_R	Reverse Current	$V_R=150\text{V}$ $T_C = 25^\circ\text{C}$ $V_R=150\text{V}$ $T_C = 125^\circ\text{C}$		0.2 5	mA
V_F	Forward Voltage	$I_F=10\text{A}$ $T_C = 25^\circ\text{C}$ $I_F=10\text{A}$ $T_C = 125^\circ\text{C}$ $I_F=20\text{A}$ $T_C = 25^\circ\text{C}$ $I_F=20\text{A}$ $T_C = 125^\circ\text{C}$		0.85 0.75 0.95 0.85	V

* DC Item are tested by Pulse Test : Pulse Width $\leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

Typical Performance Characteristics

Figure 1. Forward Current Characteristics

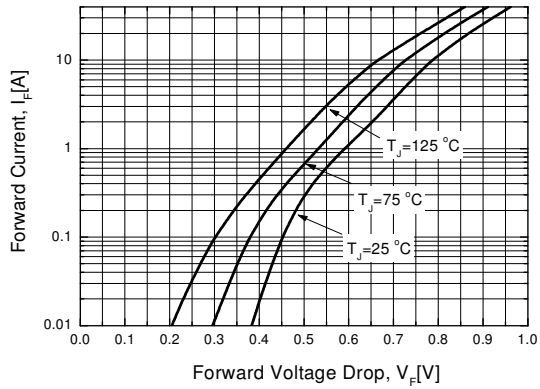


Figure 2. Reverse Leakage Current

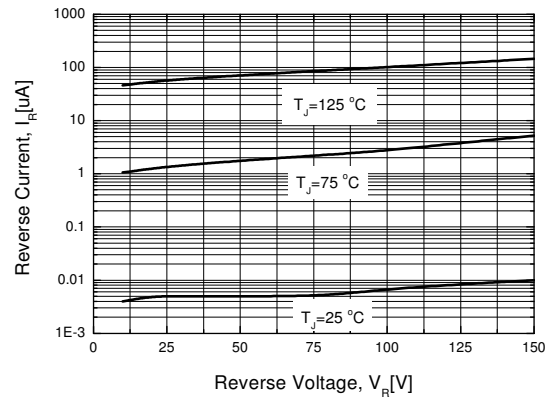


Figure 3. Junction Capacitance

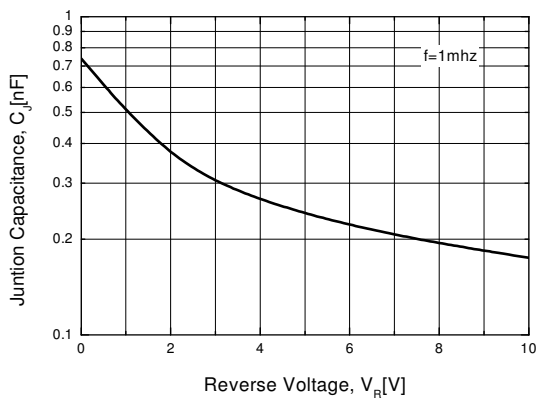
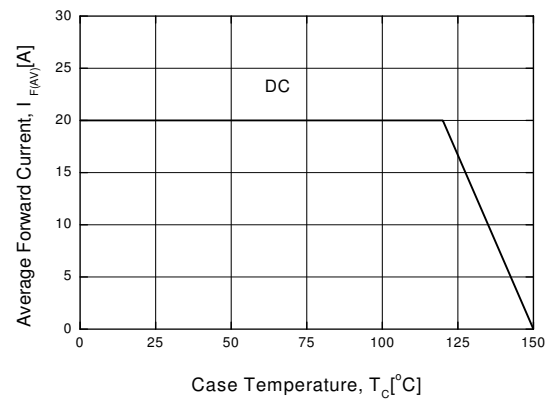
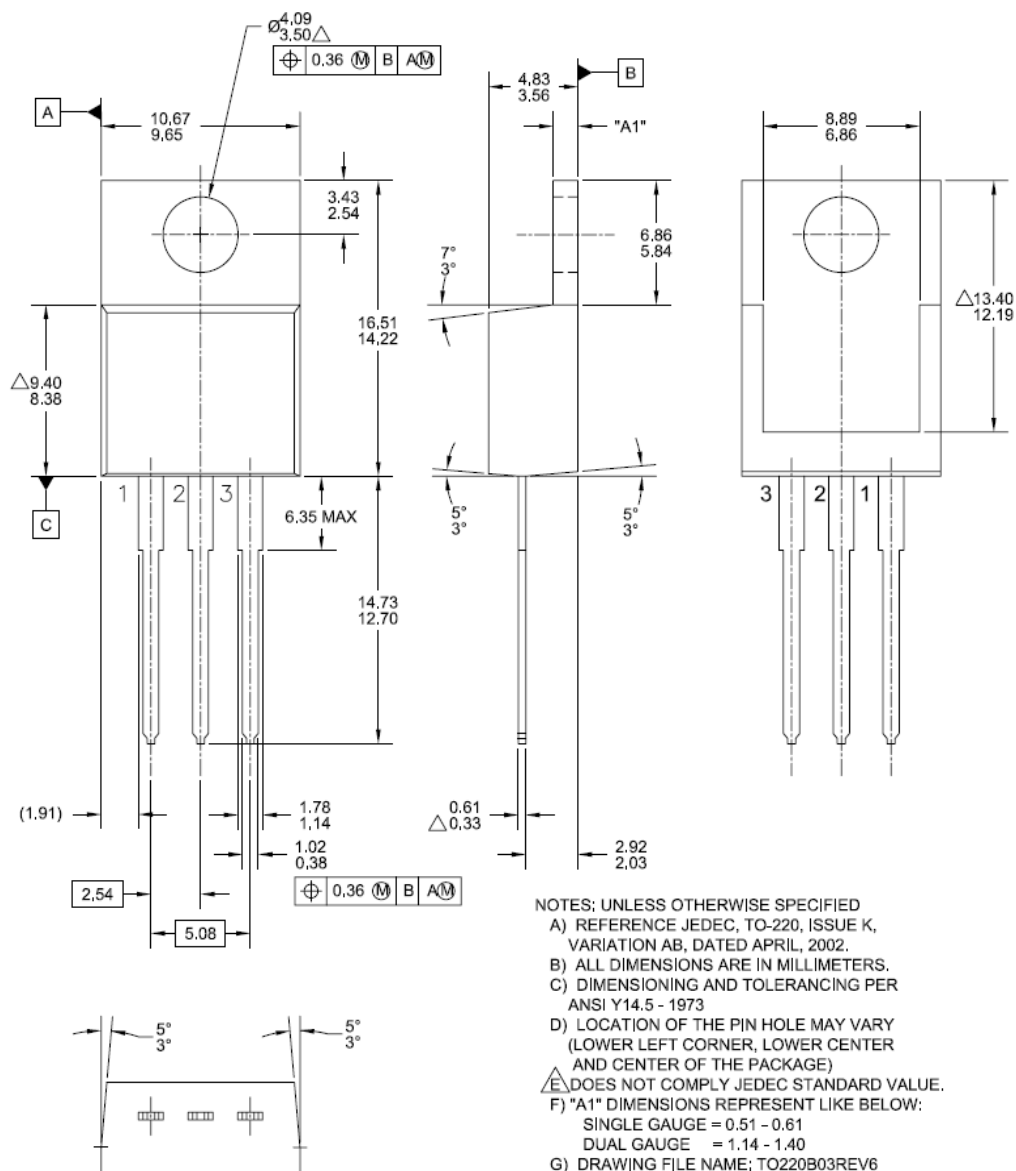


Figure 4. Power Derating



Physical Dimensions

TO-220 (DUAL GAUGE)







Dimensions in Millimeters



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