

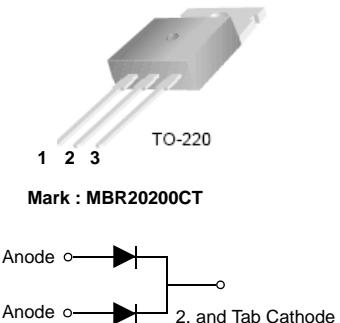


# MBR20200CT

## 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.



### Absolute Maximum Ratings\* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Unit
$V_{RRM}$	Maximum Repetitive Reverse Voltage	200	V
$V_R$	Maximum DC Reverse Voltage	200	V
$I_{F(AV)}$	Average Rectified Forward Current, $T_C=115^\circ\text{C}$	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

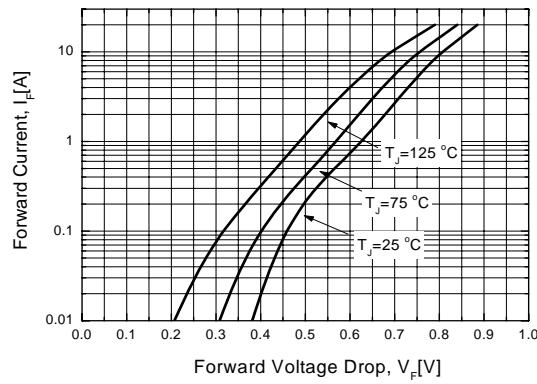
### Electrical Characteristics\* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Unit
$I_R$	Reverse Current	$V_R=200\text{V}$ $T_C = 25^\circ\text{C}$		0.2	mA
		$V_R=200\text{V}$ $T_C = 125^\circ\text{C}$		5	
$V_F$	Forward Voltage	$I_F=10\text{A}$ $T_C = 25^\circ\text{C}$		0.9	V
		$I_F=10\text{A}$ $T_C = 125^\circ\text{C}$		0.8	
		$I_F=20\text{A}$ $T_C = 25^\circ\text{C}$		1.0	
		$I_F=20\text{A}$ $T_C = 125^\circ\text{C}$		0.9	

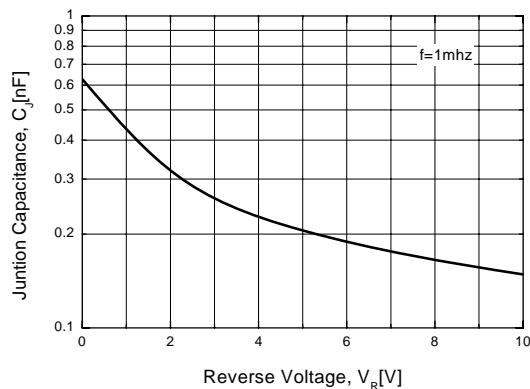
\* DC Item are tested by Pulse Test : Pulse Width $\leq 300\mu\text{s}$ , Duty Cycle $\leq 2\%$

## Typical Performance Characteristics

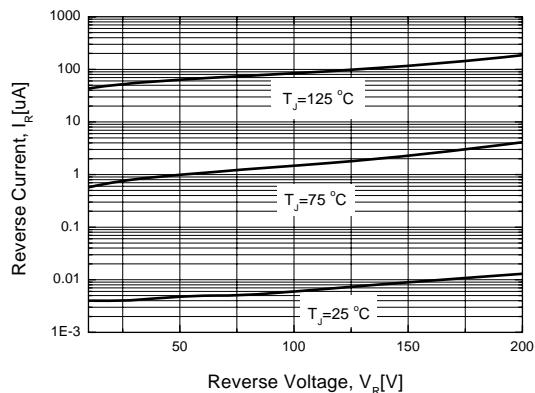
**Figure 1. Forward Current Characteristics**



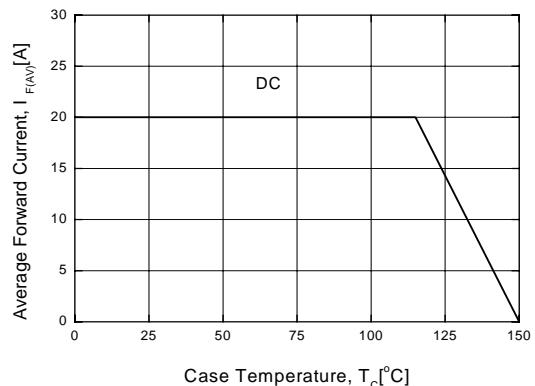
**Figure 3. Junction Capacitance**



**Figure 2. Reverse Leakage Current**

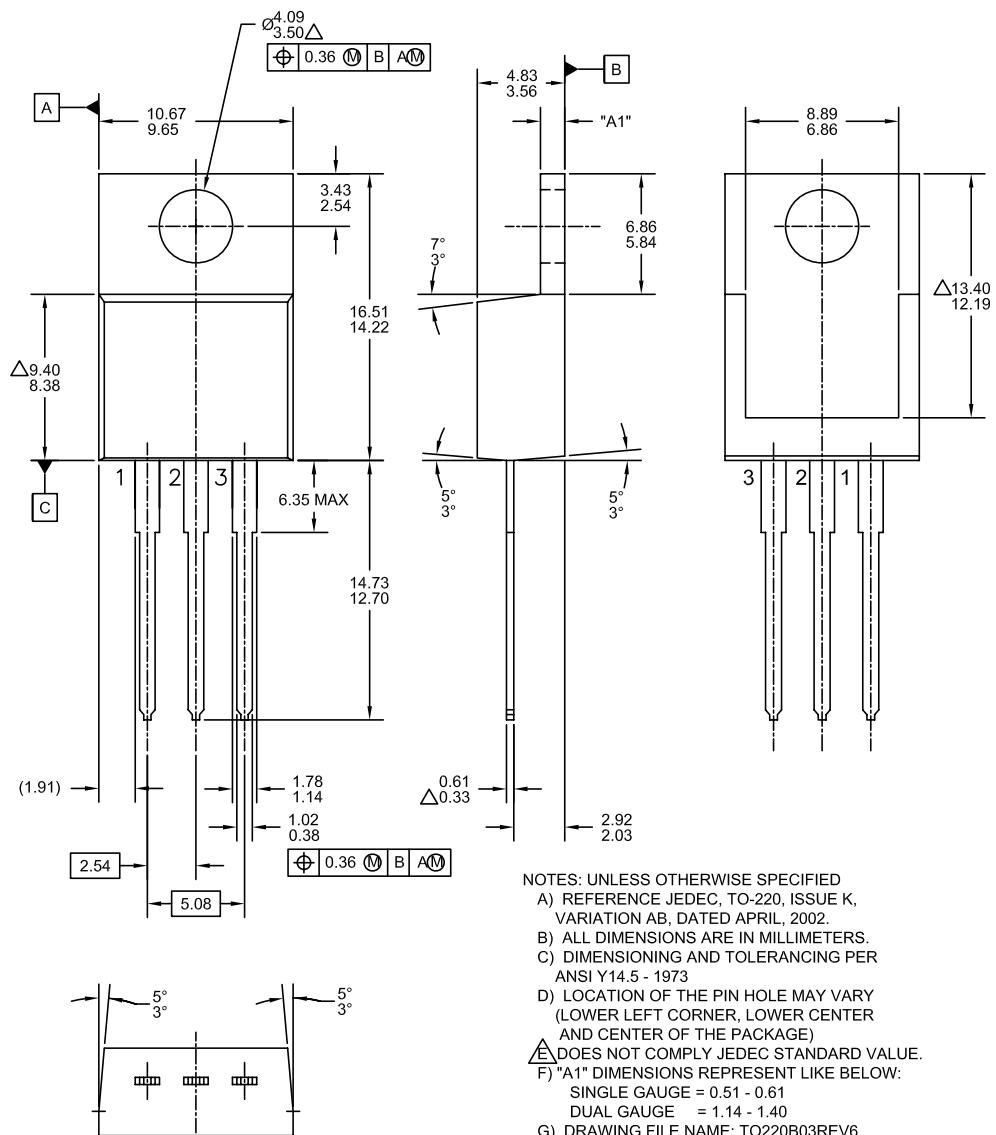


**Figure 4. Power Derating**



## Physical Dimensions

## TO-220 [ DUAL GAUGE ]



Dimensions in Millimeters



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