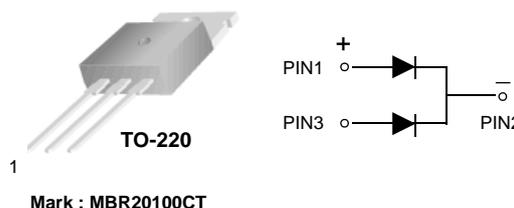


# MBR20100CT

## 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



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

Symbol	Parameter	Value	Unit
$V_{RRM}$	Maximum Repetitive Reverse Voltage	100	V
$V_R$	Maximum DC Reverse Voltage	100	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	$^\circ\text{C}/\text{W}$

\* JESD51-10

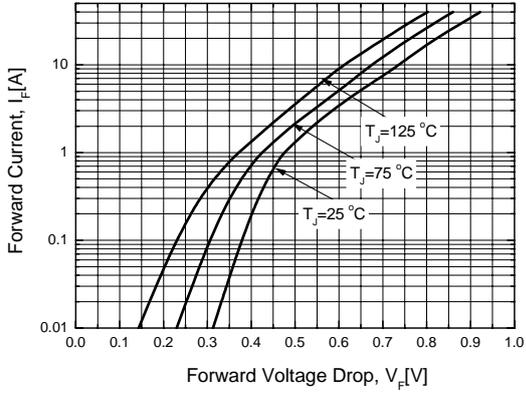
### Electrical Characteristics\* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Unit
$I_R$	Reverse Current	$V_R = 100\text{V}$ $T_c = 25^\circ\text{C}$ $V_R = 100\text{V}$ $T_c = 125^\circ\text{C}$		0.2 5	mA
$V_F$	Forward Voltage	$I_F = 10\text{A}$ $T_c = 25^\circ\text{C}$ $I_F = 10\text{A}$ $T_c = 125^\circ\text{C}$ $I_F = 20\text{A}$ $T_c = 25^\circ\text{C}$ $I_F = 20\text{A}$ $T_c = 125^\circ\text{C}$		0.8 0.7 0.9 0.8	V

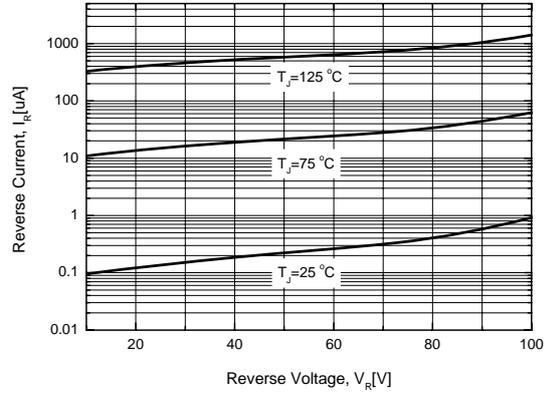
\* DC Item are tested by Pulse Test : Pulse Width  $\leq 300\mu\text{s}$ , Duty Cycle  $\leq 2\%$

## Typical Performance Characteristics

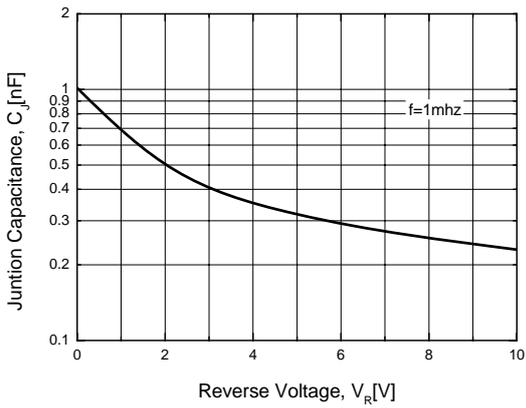
**Figure 1. Forward Current Characteristics**



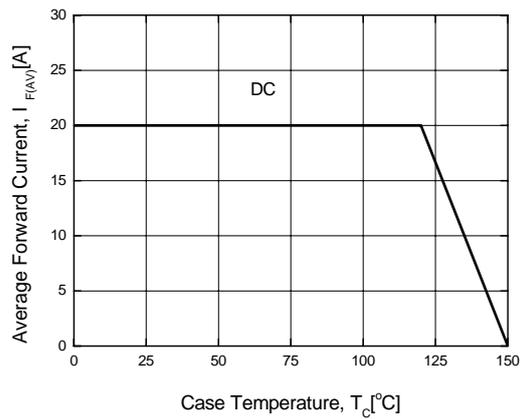
**Figure 2. Reverse Leakage Current**



**Figure 3. Junction Capacitance**



**Figure 4. Power Derating**







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