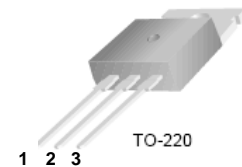


# MBR20200CT

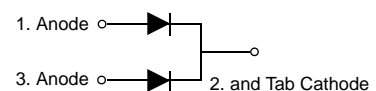
## Dual High Voltage Schottky Rectifier

### 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.



Mark : MBR20200CT



### 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

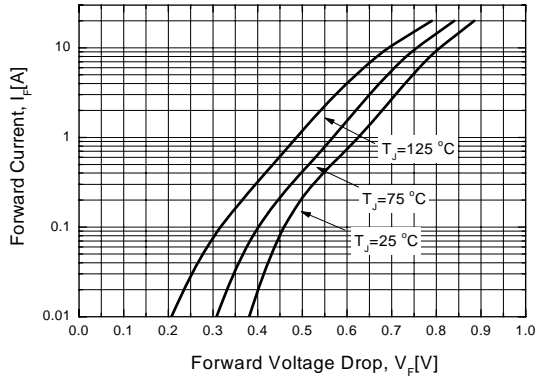
### Electrical Characteristics\* $T_a = 25^\circ\text{C}$ unless otherwise noted

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

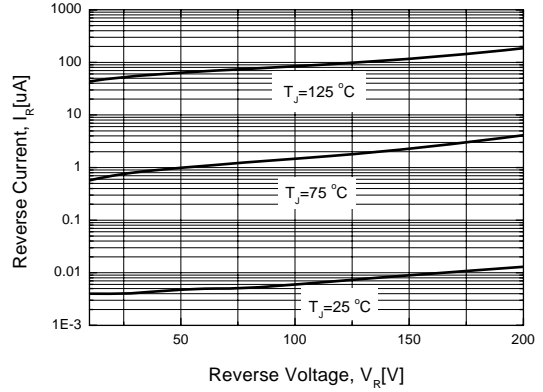
\* DC Item are tested by Pulse Test : Pulse Width $\leq 300\mu\text{s}$ , Duty Cycle $\leq 2\%$

## Typical Performance Characteristics

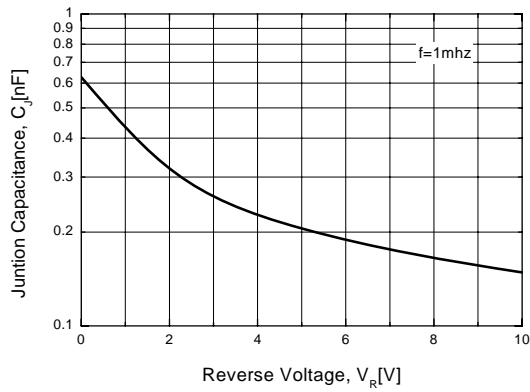
**Figure 1. Forward Current Characteristics**



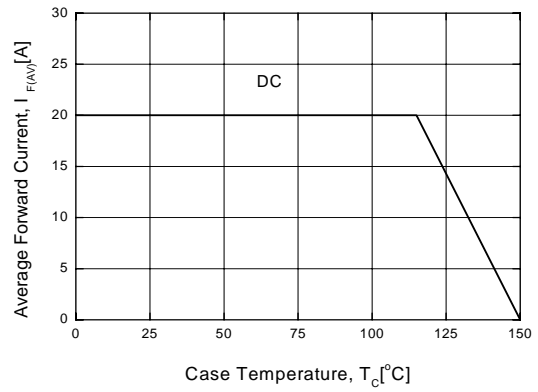
**Figure 2. Reverse Leakage Current**



**Figure 3. Junction Capacitance**

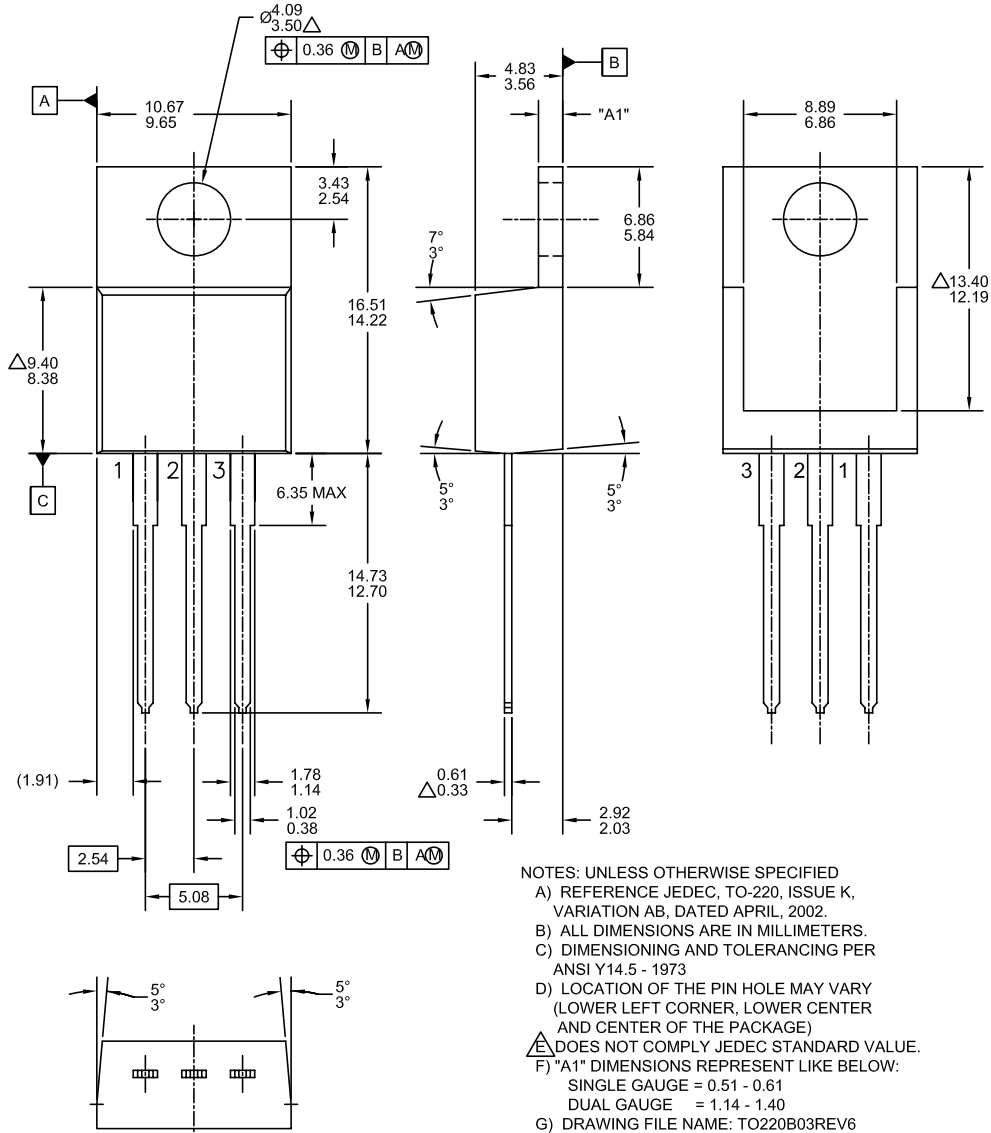


**Figure 4. Power Derating**



Physical Dimensions

## TO-220 [ DUAL GAUGE ]



Dimensions in Millimeters



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| AccuPower™               | F-PFS™                              | Power-SPM™                            | <p>SYSTEM GENERAL®<br/>The Power Franchise®<br/>the power® franchise<br/>TinyBoost™<br/>TinyBuck™<br/>TinyCalc™<br/>TinyLogic®<br/>TINYOPTO™<br/>TinyPower™<br/>TinyPWM™<br/>TinyWire™<br/>TriFault Detect™<br/>TRUECURRENT™*<br/>µSerDes™<br/> SerDes®<br/>UHC®<br/>Ultra FRFET™<br/>UniFET™<br/>VCX™<br/>VisualMax™<br/>XS™</p> |
| Auto-SPM™                | FRFET®                              | PowerTrench®                          |   |
| Build it Now™            | Global Power Resource <sup>SM</sup> | PowerXS™                              |   |
| CorePLUS™                | Green FPS™                          | Programmable Active Droop™            |   |
| CorePOWER™               | Green FPS™ e-Series™                | QFET®                                 |   |
| CROSSVOLT™               | Gmax™                               | QS™                                   |   |
| CTL™                     | GTO™                                | Quiet Series™                         |   |
| Current Transfer Logic™  | IntelliMAX™                         | RapidConfigure™                       |   |
| DEUXPEED®                | ISOPLANAR™                          | Saving our world, 1mW/W/kW at a time™ |   |
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| EcoSPARK®                | MICROCOUPLER™                       | SmartMax™                             |   |
| EfficientMax™            | MicroFET™                           | SMART START™                          |   |
| ESBC™                    | MicroPak™                           | SPM®                                  |   |
| Fairchild®               | MicroPak2™                          | STEALTH™                              |   |
| Fairchild Semiconductor® | MillerDrive™                        | SuperFET®                             |   |
| FACT Quiet Series™       | MotionMax™                          | SuperSOT™-3                           |   |
| FACT®                    | Motion-SPM™                         | SuperSOT™-6                           |   |
| FAST®                    | OptoHit™                            | SuperSOT™-8                           |   |
| FastvCore™               | OPTOLOGIC®                          | SupreMOS®                             |   |
| FETBench™                | OPTOPLANAR®                         | SyncFET™                              |   |
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| FPS™                     |                                     |                                       |   |

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