



RoHS  
COMPLIANCE



# MBRS20H100CT-MBR20H200CT

## 20.0 AMP. Surface Mount Schottky Barrier Rectifiers

### Switching Mode Rectifiers

#### D<sup>2</sup>PAK

### Features

- ✧ Plastic material used carries Underwriters Laboratory Classifications UL 94V-0
- ✧ Metal silicon junction, Majority carrier conduction.
- ✧ Low power loss, high efficiency.
- ✧ High current capability, Low forward voltage drop.
- ✧ High surge current capability.
- ✧ Guard-ring for transient protection.
- ✧ For use in Power supply - Output rectification, power management, instrumentation.
- ✧ High temperature soldering guaranteed: 260°C/10 seconds / .375", (9.5mm) lead lengths at 5 lbs., (2.3kg) tension
- ✧ Green compound with suffix "G" on packing code & prefix "G" on date code.

### Mechanical Data

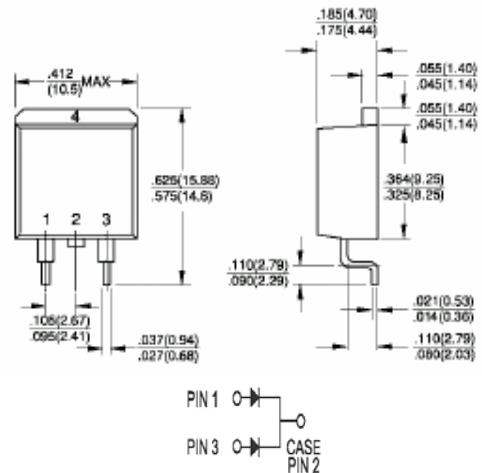
- ✧ Cases: JEDEC D<sup>2</sup>PAK Molded plastic
- ✧ Terminal: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ✧ Polarity: As marked
- ✧ Mounting position : Any
- ✧ Mounting Torque : 5 in.-lbs. max.
- ✧ Weight: 2.24 gram

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%



Dimensions in inches and (millimeters)  
Marking Diagram



MBRS20HXXCT = Specific Device Code  
G = Green Compound  
Y = Year  
WW = Work Week

Type Number	Symbol	MBRS 20H100CT	MBRS 20H150CT	MBRS 20H200CT	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	100	150	200	V
Maximum Average Forward Rectified Current @TC = 125°C	$I_{(AV)}$	20			A
Peak Repetitive Forward Current (Rated VR, Square Wave, 20KHz) At TC = 125°C	$I_{FRM}$	20			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	220			A
Peak Repetitive Reverse surge Current (Note 1)	$I_{RRM}$	0.5			A
Maximum Instantaneous Forward Voltage at (Note 2) IF=10A TC =25 °C IF=10A TC =125 °C IF=20A TC =25 °C IF=20A TC =125 °C	$V_F$	0.85 0.75 0.95 0.85	0.88 0.75 0.97 0.85		V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	$I_R$	5 2.0			uA mA
Voltage rate of change (rated VR)	dV/dt	10,000			V/uS
Typical Junction Capacitance (Note 2)	$C_j$	330			pF
Typical Thermal Resistance per leg.(Note 3)	$R\theta_{JC}$	1.5			°C/W
Operating Temperature Range	$T_J$	-65 to +175			°C
Storage Temperature Range	$T_{STG}$	-65 to +175			°C

Notes: 1. 2.0Us PU;SE WIDTH. F=1.0kh, Continue 10 cycles

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

3. Thermal Resistance from junction to case Per Leg, with Heatsink size (2"x3"x0.25") Al-plate.

RATINGS AND CHARACTERISTIC CURVES (MBRS20H100CT,MBRS20H200CT)

