



# MBR20200CT Dual schottky barrier diodes

## QUICK REFERENCE DATA

VR = 200 V

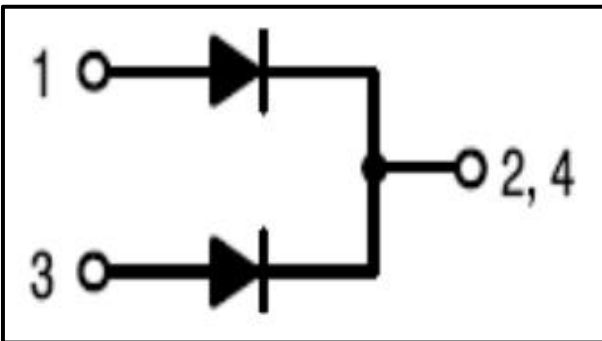
IF(AV) = 20 A

VF ≤ 0.9V

## MECHANICAL DATA :

- Case: TO-252/251 molded plastic
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.0655 ounces, 1.859 grams
- Terminals: solder plated,  
solderable per MIL-STD-750, Method 2026

## SYMBOL :

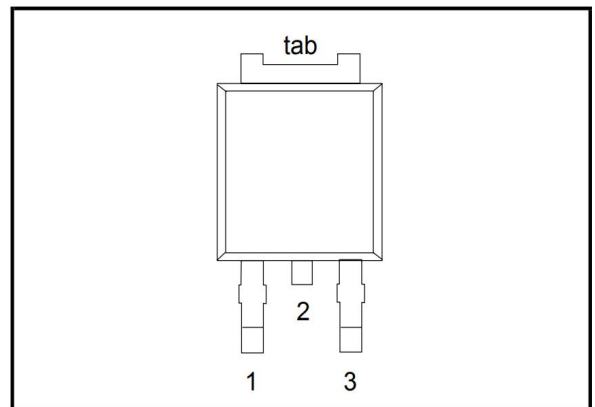


## FEATURES :

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Flame Retardant Epoxy Molding Compound
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability
- Guardring for overvoltage protection
- In compliance with EU RoHS 2002/95/EC directives
- For use in low voltage, high frequency inverters free wheeling , and polarity protection applications.

## PINNING:

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | anode 1     |
| 2   | cathode 1   |
| 3   | anode 2     |
| tab | cathode     |





**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings 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%

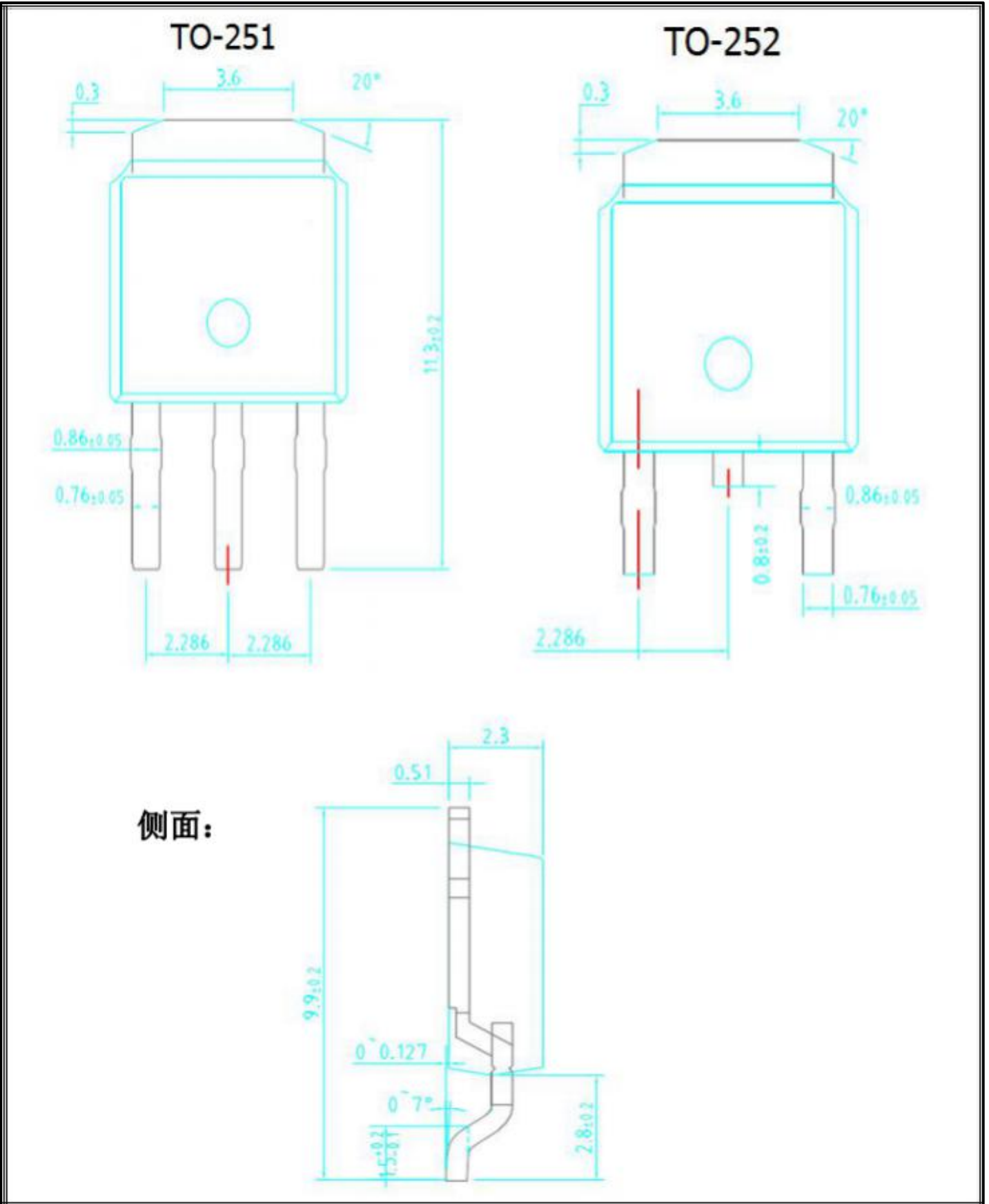
| Parameter   | Symbol | Test Condition | MIN | TYP  | Max    | Unit |
|---|--------|----------------|-----|------|--------|------|
| Peak Repetitive Reverse Voltage   | VRRM   |                |     |      | 200    | V    |
| Maximum RMS Voltage   | VRMS   |                |     |      | 140    | V    |
| Maximum DC Blocking Voltage   | VR(DC) |                |     |      | 200    | V    |
| Average Rectified Forward Current   | IF(AV) |                |     |      | 20     | A    |
| Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM   |                |     |      | 200    | A    |
| Maximum Forward Voltage at 10A, per leg   | VF     |                |     |      | 0.9    | V    |
| Maximum DC Reverse Current T=25°C   | IR     |                |     | 0.05 | 0.1    | mA   |
| at Rated DC Blocking Voltage T=125°C  |        |                |     |      | 20     | mA   |
| Voltage Rate of Change (Rated VR)   | dv/dt  |                |     |      | 10,000 | v/μs |
| Typical Thermal Resistance  | RθJC   |                |     |      | 2      | °C/W |
| Operating junction temperature  | Tj     |                | -65 |      | 175    | °C   |
| Storage temperature   | Tstg   |                | -65 |      | 175    | °C   |

**Notes :**

- Both Bonding and Chip structure are available.
- Pulse Test: Pulse Width = 300 ms, Duty Cycle ≤ 2.0%
- The heat generated must be less than the thermal conductivity from Junction-to-Ambient:  $dPD/dTJ < 1/RqJA$ .

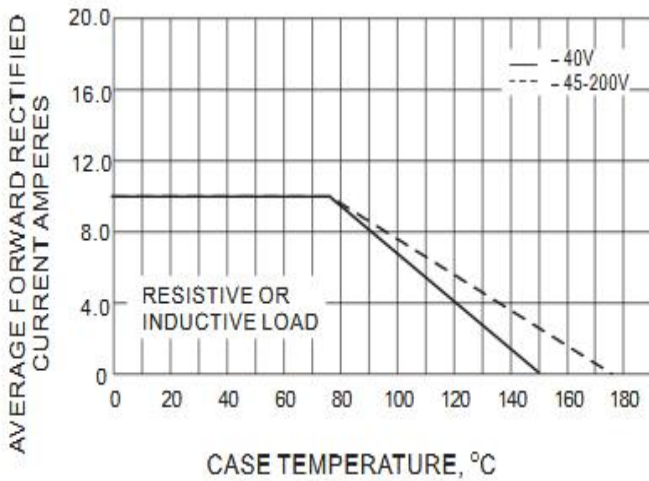


TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

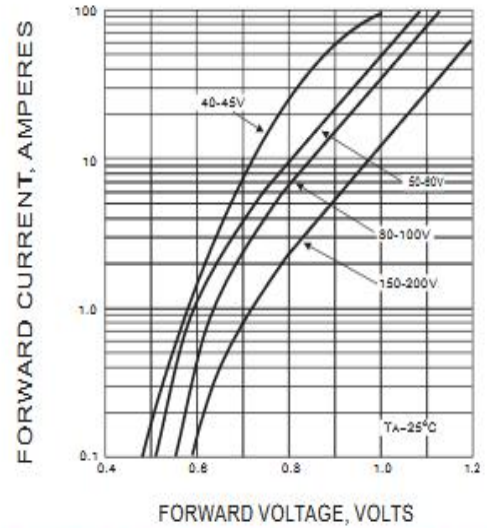




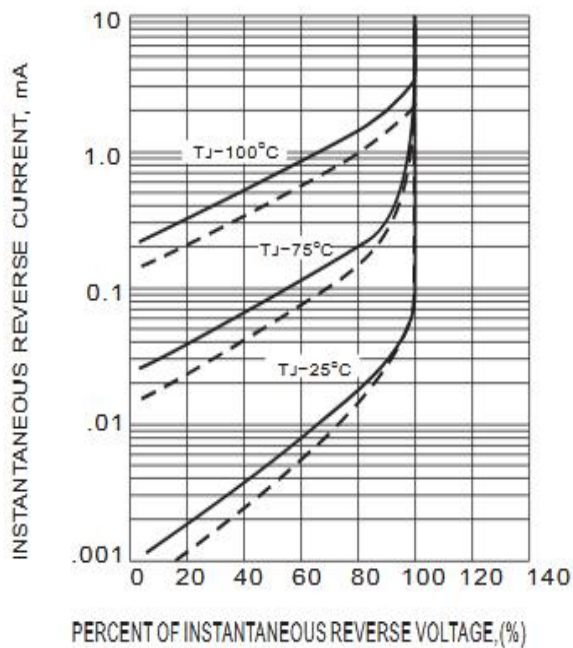
**RATING AND CHARACTERISTIC CURVES**



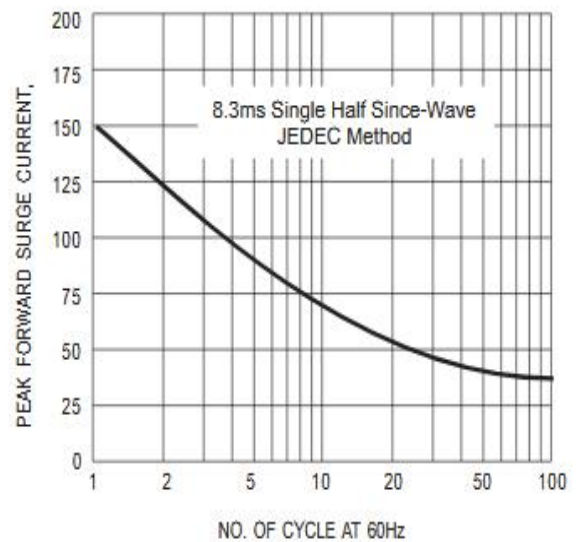
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**