



SCHOTTKY BARRIER RECTIFIERS

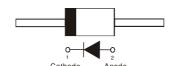
VOLTAGE 40 to 200 Volt CURRENT 3 Ampere

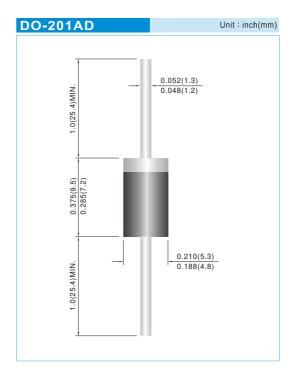
FEATURES

- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- Surge Overload Rating to 80A Peak
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications.
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

- · Case: DO-201AD Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026
- · Polarity: Color band denotes cathode
- Weight: 0.0403 ounces, 1.142 grams





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

| PARAMETER | SYMBOL | MBR340 | MBR345 | MBR350 | MBR360 | MBR380 | MBR390 | MBR3100 | MBR3150 | MBR3200 | UNITS |
|---|--|----------------|--------|--------|--------|--------|--------|---------|---------|---------|-------|
| Maximum Recurrent Peak Reverse Voltage | | 40 | 45 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | ٧ |
| Maximum RMS Voltage | | 28 | 31.5 | 35 | 42 | 56 | 63 | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | V _{DC} | 40 | 45 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | V |
| Average Rectified Output Current (See Figure 1) | I _o | 3.0 | | | | | А | | | | |
| Non-Repetitive Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 80 | | | | | | А | | | |
| Forward Voltage at 3.0A (Note 3) | V _F | 0.70 0.74 | | 74 | 0.80 | | 0.9 | | V | | |
| Peak Reverse Current at Rated DC T _J =25°C Blocking Voltage T _J =100°C | I _R | 0.05 10 | | | | | | mA | | | |
| Typical Thermal Resistance (Note 2) (Note 1) (Note 1) | $egin{array}{c} {\sf R}_{_{	heta {\sf JC}}} \ {\sf R}_{_{	heta {\sf JL}}} \end{array}$ | 50 12 15 | | | | | | °C / W | | | |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | | °C | | | | |

Notes:

- 1. Measured at ambient temperature at a distance of 9.5mm from the case
- 2. Minimum Pad Area
- 3. Pulse test : $300\mu s$ pulse width , 1% duty cycle





RATING AND CHARACTERISTIC CURVES

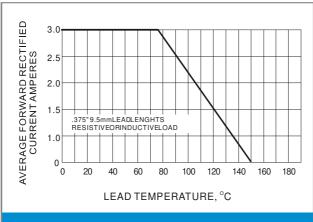


Fig.1 FORWARD CURRENT DERATING CURVE

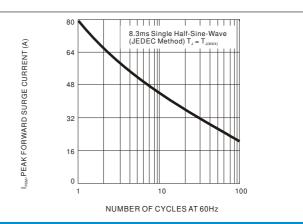


Fig.2 MAXIMUM NON-REPETITIVEPEAKFORWARD SURGE CURRENT

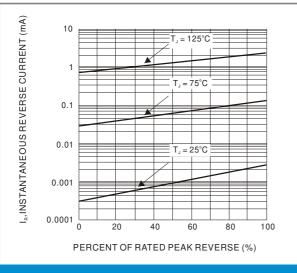


Fig.3 TYPICAL REVERSE CHARACTERISTIC

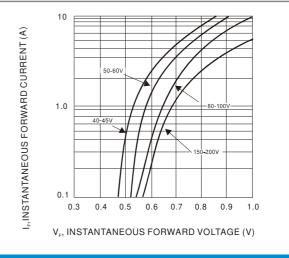


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

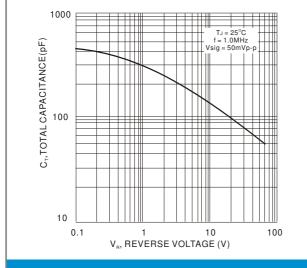


Fig.5 TYPICAL TOTAL CHARACTERISTIC

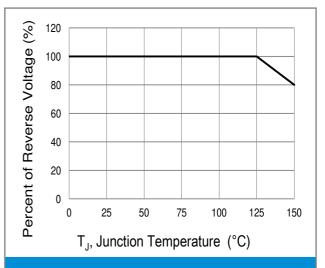


Fig.6 Operating Temperature Derating Curve





Part No_packing code_Version

MBR340_AY_00001

MBR340_AY_10001

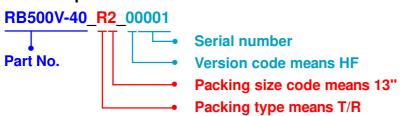
MBR340_B0_00001

MBR340_B0_10001

MBR340_R2_00001

MBR340_R2_10001

For example:



| Packing Code XX | | | | | Version Code XXXXX | | | | |
|--------------------------------------|----------|-----------------------------------|----------------------|------------|----------------------|---------------------------------------|--|--|--|
| Packing type | 1st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code | | | |
| Tape and Ammunition Box (T/B) | Α | N/A | 0 | HF | 0 | serial number | | | |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number | | | |
| Bulk Packing (B/P) | В | 13" | 2 | | | | | | |
| Tube Packing (T/P) | Т | 26mm | X | | | | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | | | | |





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