<u>MBR20150PT,MBR20200PT</u>

SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage: 150,200V Forward Current: 20A

FEATURES

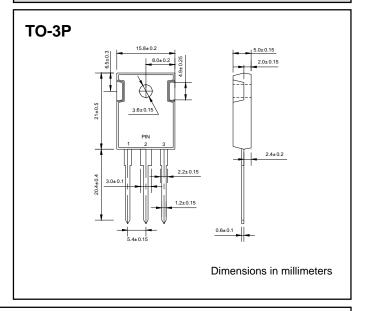
- · Metal-Semiconductor junction with guard ring
- · Epitaxial construction
- · Low forward voltage drop, low swithing losses
- · High surge capacity
- · For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- ·The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

· Case: JEDEC TO-3P, molded plastic body · Terminals: Solderable per MIL-STD-750, Method 2026

· Polarity: As marked · Mounting Position: Any

· Weight: 0.223 ounce, 6.3 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter | Symbol | MBR20150PT | MBR20200PT | UNITS |
|---|--------------------|------------|------------|--------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 150 | 200 | V |
| Maximum RMS voltage | V _{RWS} | 135 | 140 | V |
| Maximum DC blocking voltage | V _{DC} | 150 | 200 | V |
| Maximum average forward tolal device rectified current @T _C =120°C | I _(AV) | 20 | | А |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 150 | | А |
| Maximum instantaneous forward voltage @ 10A | V _F | 0.95 | | V |
| Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C | l _R 0.2 | | | mA |
| | D | 50 | | 00/14/ |
| Maximum thermal resistance (Note1) | $R_{\theta JC}$ | 1.5 | | °C/W |
| Operating junction temperature range | T _J | -55 +150 | | °C |
| Storage temperature range | T _{STG} | -55 +150 | | °C |

NOTES: 1. Thermal resistance from junction to case.

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FIG.1 TYPICAL FORWARD CHARACTERISTICS

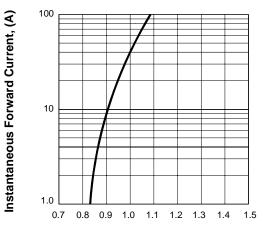
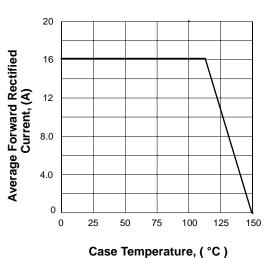
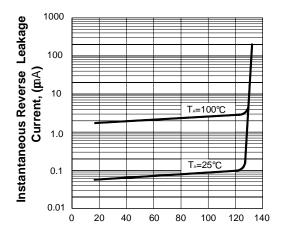


FIG.2 FORWARD DERATING CURVE



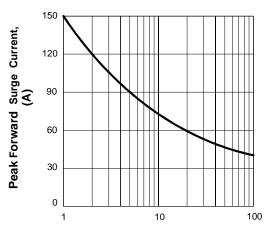
Instantaneous Forward Voltage, (V)

FIG.3 TYPICAL REVERSE CHARACTERISTICS



Percent Of Rated Peak Reverse Voltage, %

FIG.4 PEAK FORWARD SURGE CURRENT



Number Of Cycles At 60Hz