

DATA SHEET

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 150 Volts

CURRENT 20.0Amperes

TO-220AB

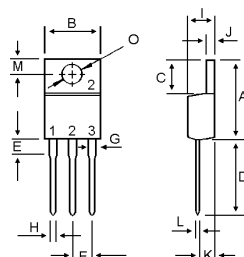
Unit:mm

FEATURES

- Metal of silicon rectifier,majority carrier conducton
- Guard-Ring for Stress Protection.
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0

MECHANICAL DATA

- Case : TO-220AB molded plastic
- Polarity : As marked on the body
- Mounting position : Any



| DIM | MILLIMETERS | |
|-----|-------------|-------|
| | MIN | MAX |
| A | 14.68 | 15.32 |
| B | 9.78 | 10.42 |
| C | 5.02 | 6.52 |
| D | 13.06 | 14.62 |
| E | 3.57 | 4.07 |
| F | 2.42 | 2.66 |
| G | 1.12 | 1.36 |
| H | 0.72 | 0.96 |
| I | 4.22 | 4.98 |
| J | 1.14 | 1.38 |
| K | 2.20 | 2.98 |
| L | 0.33 | 0.55 |
| M | 2.48 | 2.98 |
| O | 3.70 | 3.90 |



In compliance with EU RoHs 2002/95/EC directives

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%

| CHARACTERISTICS | SYMBOL | | | MBR20150CT | UNIT |
|--|------------------|-----------------------|----|------------|------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | | | 150 | V |
| Maximum RMS Voltage | VRMS | | | 105 | V |
| Maximum DC Blocking Voltage | V _{cc} | | | 150 | V |
| Average Rectifier Forward Current (per diode) | IF (AV) | | | 10 | A |
| Total Device (Rated VR) @TC=125°C | | | | 20 | |
| Non-Repetitive Peak Surge Current (Surge applied at rate load conditions halfware, single phase, 60Hz) | IFSM | | | 150 | A |
| Maximum Instantaneous Forward Voltage | IF=10A | T _c =25°C | VF | 0.92 | V |
| | | T _c =125°C | | 0.85 | |
| Instantaneous Reverse Current | AT VRM | T _c =25°C | IR | 0.05 | MA |
| | | T _c =125°C | | 15 | |
| Typical Thermal Resistance | R _{θJC} | | | 3.5 | °C/W |
| Operating Temperature Range | T _J | | | -55to+175 | °C |
| Storage Temperature Range | T _{STG} | | | -55to+175 | °C |

FIG-1 FORWARD CURRENT DERATING CURVE

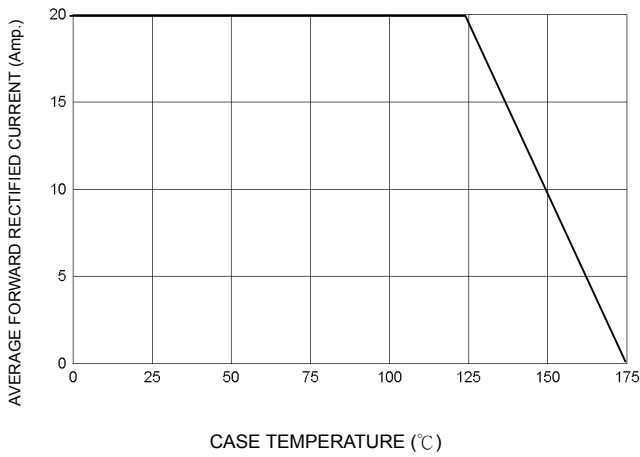


FIG-2 TYPICAL FORWARD CHARACTERISTICS

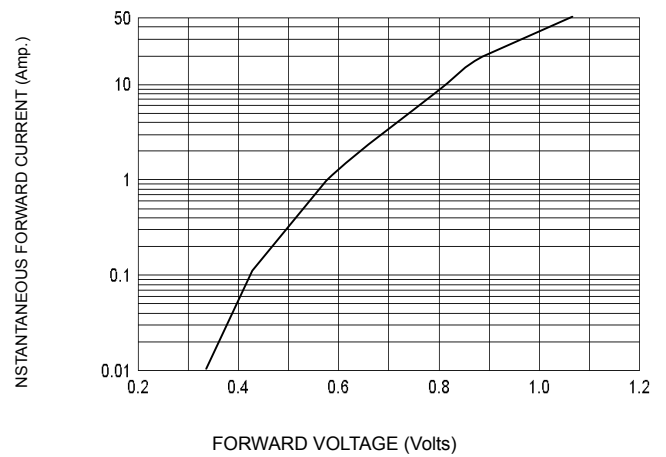


FIG-3 TYPICAL REVERSE CHARACTERISTICS

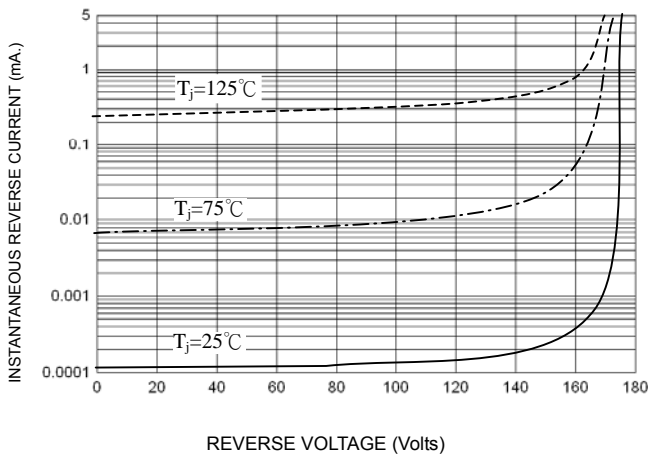


FIG-4 TYPICAL JUNCTION CAPACITANCE

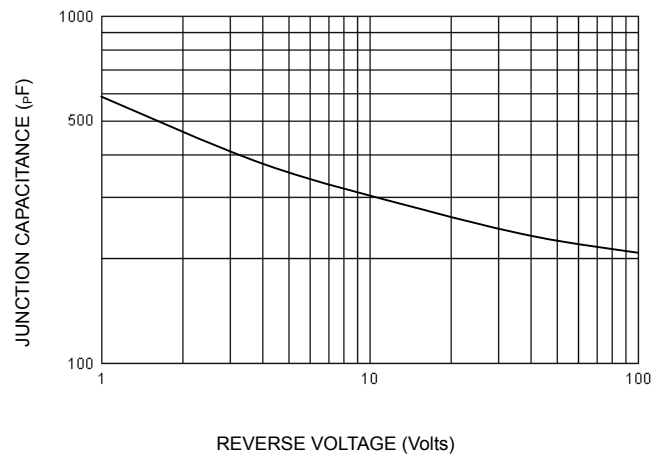


FIG-5 PEAK FORWARD SURGE CURRENT

