

SCHOTTKY BARRIER RECTIFIER

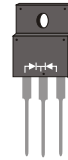
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- High surge capability
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

MECHANICAL DATA

- Case: ITO-220AB molded plastic body
- Terminals:Lead solderable per MIL-STD-750,method 2026
- Polarity:Color band denotes cathode end

ITO-220AB



MAXIMUM RATINGS AND CHARACTERISTICS

(Ratings at 25 °C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load, derate by 20%.)

| | Symbols | MBR 2020FCT | MBR 2030FCT | MBR 2040FCT | MBR 2050FCT | MBR 2060FCT | MBR 2080FCT | MBR 20100FCT | MBR 20150FCT | MBR 20200FCT | Units |
|--|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|-------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | Volts |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum average forward rectified current See Fig. 1 | I(AV) | 20.0 | | | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 200.0 | | | | | | | | | Amps |
| Maximum instantaneous forward voltage at 20.0 A | V _F | 0.60 | | | 0.75 | | 0.85 | | 0.90 | 0.95 | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) | T _c = 25 °C | 0.2 | | | | | | | | | mA |
| | T _c = 125 °C | 30 | | | 50 | | | | | | |
| Typical thermal resistance (Note 2) | R _{θJC} | 3.0 | | | | | | | | | °C/W |
| Operating junction temperature range | T _J | -65 to +150 | | | | | | | | | °C |
| Storage temperature range | T _{STG} | -65 to +150 | | | | | | | | | °C |

Notes: 1. Pulse test: 300 μs pulse width, 1% duty cycle
2. Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

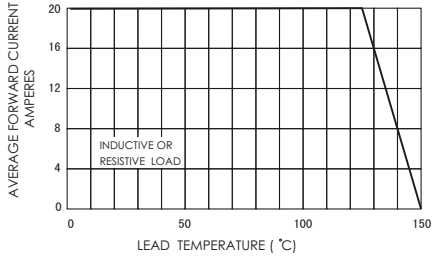


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

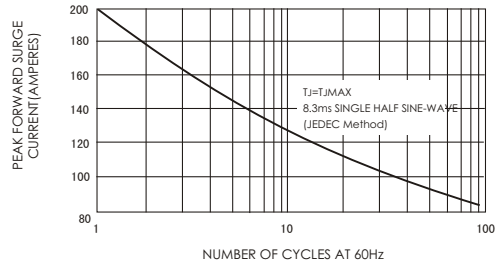


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

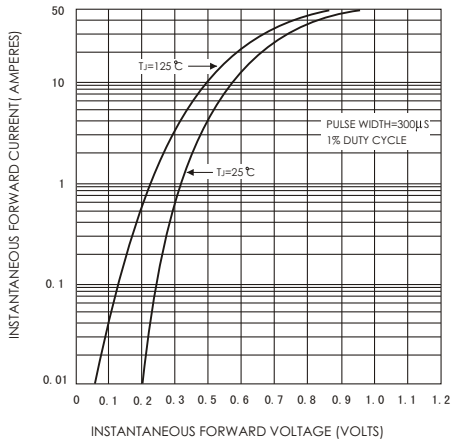


FIG.4-TYPICAL REVERSE CHARACTERISTICS

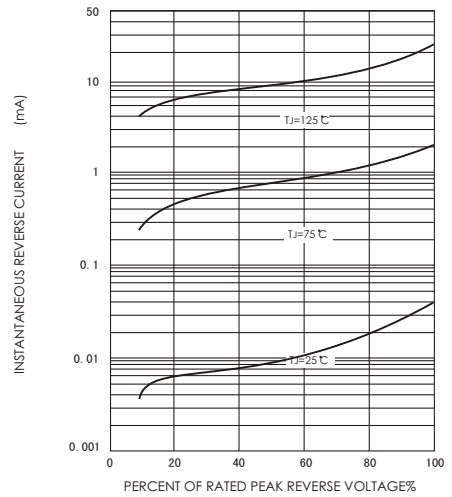


FIG.5-TYPICAL JUNCTION CAPACITANCE

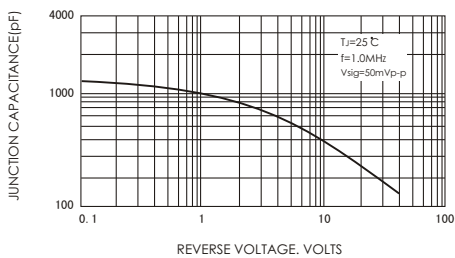


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

