

SCHOTTKY BARRIER RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25"(6.35mm) from case for 10 seconds

Mechanical Data

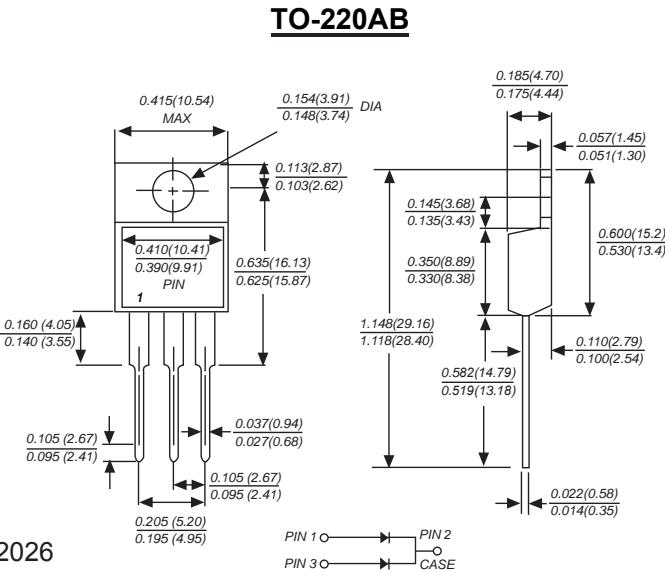
Case : JEDEC TO-220AB Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.080 ounce, 2.24 grams



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

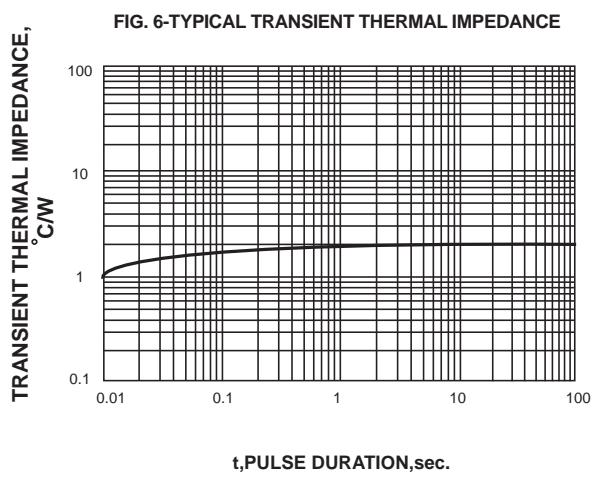
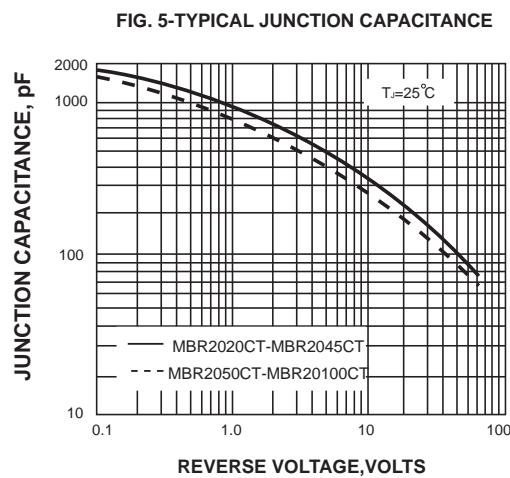
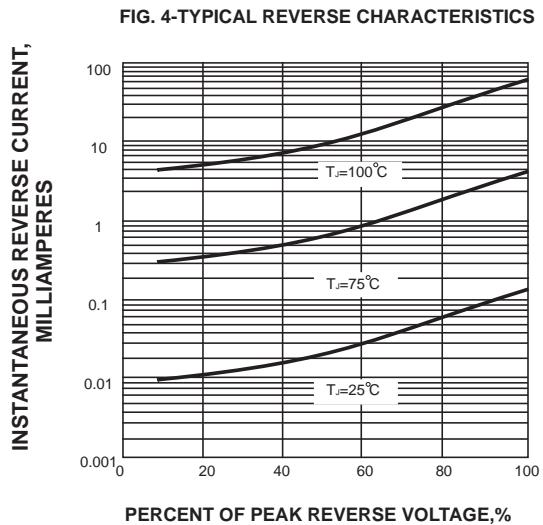
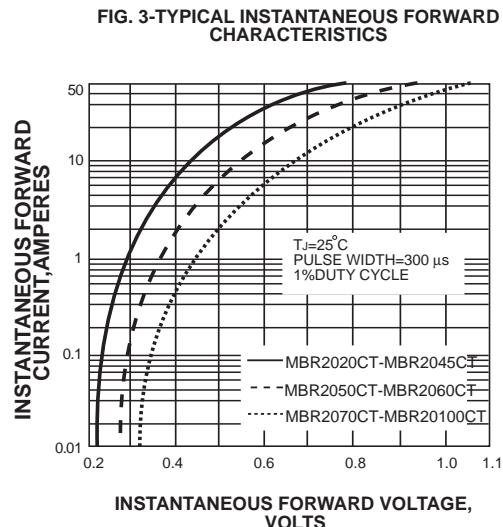
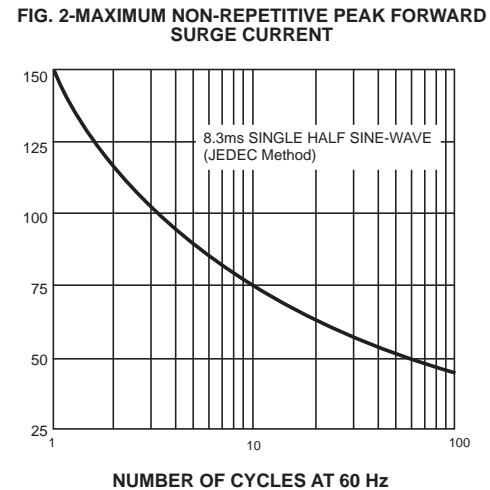
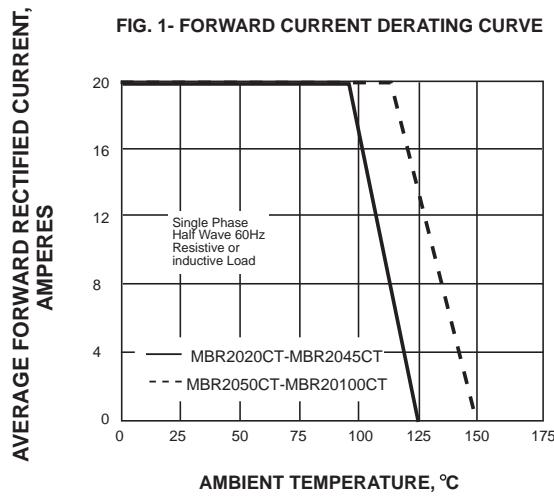
Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter | SYMBOLS | MDD MBR 2020CT | MDD MBR 2030CT | MDD MBR 2040CT | MDD MBR 2045CT | MDD MBR 2050CT | MDD MBR 2060CT | MDD MBR 2070CT | MDD MBR 2080CT | MDD MBR 2090CT | MDD MBR 20100CT | UNITS | | |
|--|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|-----------------------|-------|--|--|
| Marking Code | | | | | | | | | | | | | | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 45 | 50 | 60 | 70 | 80 | 90 | 100 | V | | |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 32 | 35 | 42 | 49 | 56 | 63 | 70 | V | | |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 45 | 50 | 60 | 70 | 80 | 90 | 100 | V | | |
| Maximum average forward rectified current (see fig.1) | I _(AV) | 20.0 | | | | | | | | | | A | | |
| Peak forward surge current 8.3ms single half sine-wave | I _{FSM} | 150 | | | | | | | | | | A | | |
| Maximum instantaneous forward voltage at 10.0A | V _F | 0.55 | | 0.75 | | 0.85 | | | | | | | | |
| Maximum DC reverse current TA=25°C at rated DC blocking voltage TA=100°C | I _R | 1.0 | | | | | | | | | | mA | | |
| Typical junction capacitance (NOTE 1) | C _J | 15.0 | | 50.0 | | 450 | | | | | | pF | | |
| Typical thermal resistance (NOTE 2) | R _{θJC} | 2.0 | | | | | | | | | | °C/W | | |
| Operating junction temperature range | T _J | -50 to +125 | | | -50 to +150 | | | | | | | °C | | |
| storage temperature range | T _{STG} | -50 to +150 | | | | | | | | | | °C | | |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to case.

Ratings And Characteristic Curves



The curve above is for reference only.