

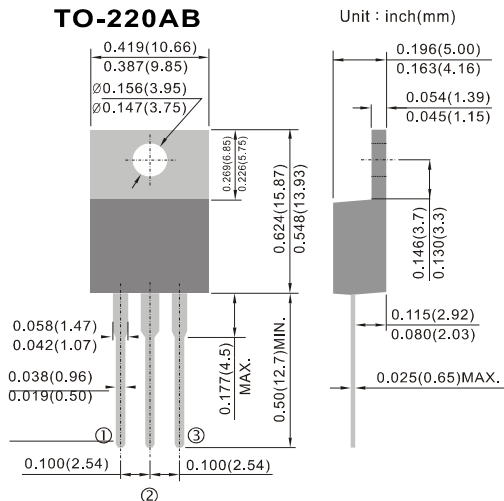
MBR4045LCT

LOW VF SCHOTTKY RECTIFIER

VOLTAGE 45 Volts **CURRENT** 40 Amperes



TO-220AB



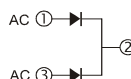
FEATURES

- Low forward voltage drop, low power losses
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive

MECHANICAL DATA

Case : TO-220AB, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026



MAXIMUM RATINGS(T_A=25°C unless otherwise noted)

Rating 25 C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, derate current voltage by 20%.

| PARAMETER | SYMBOL | VALUE | UNIT |
|---|--------------------|--------------|------|
| Maximum repetitive peak reverse voltage | V _{RRM} | 45 | V |
| Maximum average forward rectified current | I _{F(AV)} | 40 20 | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 250 | A |
| Typical thermal resistance per diode | R _{θJC} | 8.0 | °C/W |
| Operating junction temperature range | T _J | -55 to + 125 | °C |
| Storage temperature range | T _{STG} | -55 to + 150 | °C |

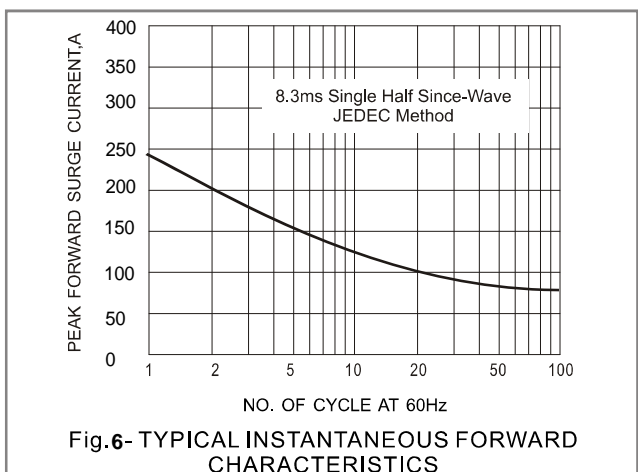
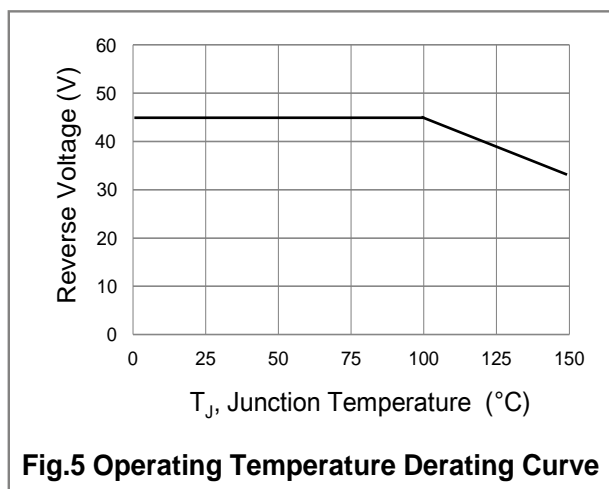
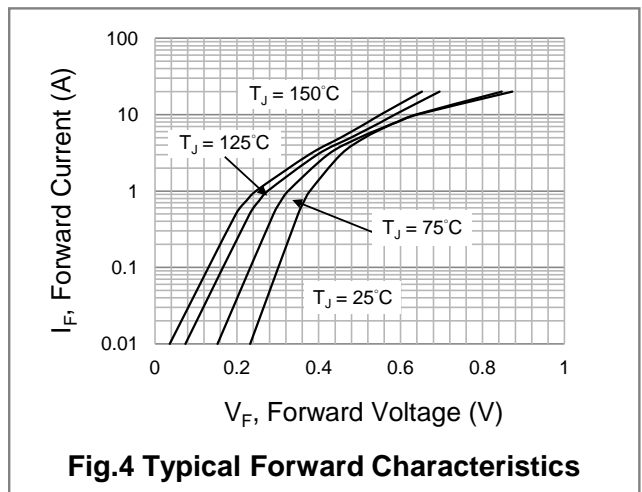
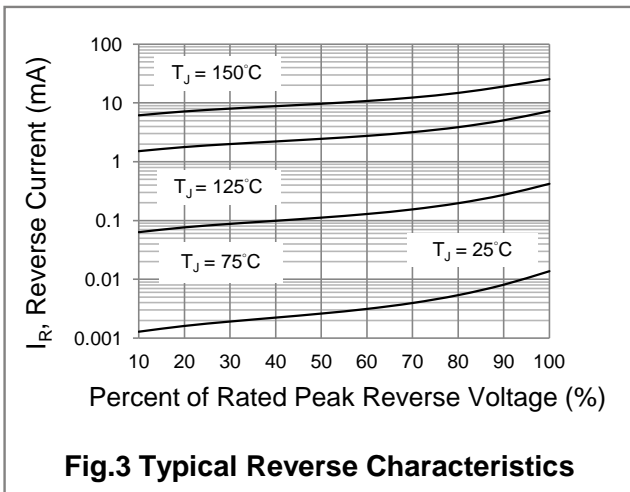
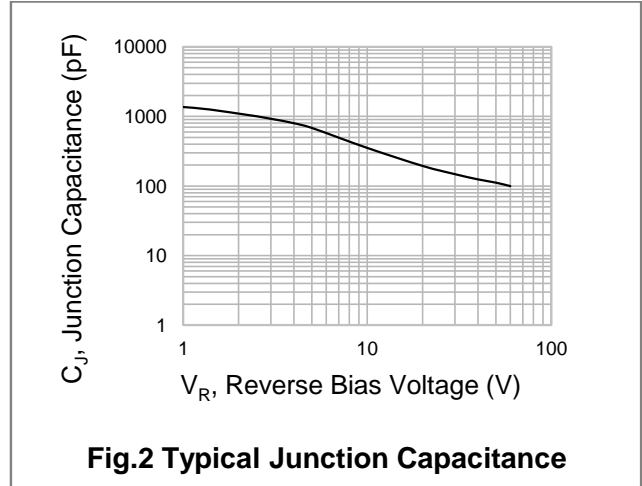
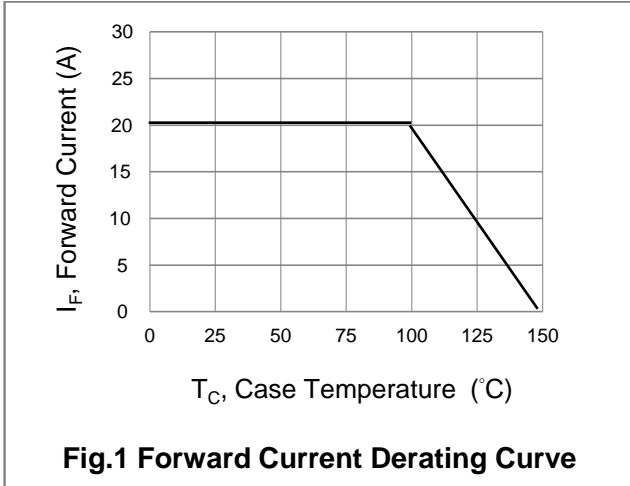
ELECTRICAL CHARACTERISTICS(T_A=25°C unless otherwise noted)

| PARAMETER | SYMBOL | TEST CONDITIONS | MIN. | TYP. | MAX. | UNIT |
|---|-----------------|---|----------------|----------------------|----------------|------|
| Breakdown voltage | V _{BR} | I _R =1mA | 45 | - | - | V |
| Instantaneous forward voltage per diode | V _F | I _F =5A I _F =10.0A I _F =20A T _J =25°C | - | 0.39 0.42 0.48 | - - 0.53 | V |
| | | I _F =5A I _F =10.0A I _F =20A T _J =125°C | - | 0.27 0.31 0.41 | - - 0.45 | V |
| | | Reverse current per diode | I _R | V _R =36V | - | 0.2 |
| Reverse current per diode | I _R | V _R =45V T _A =25°C | - | 0.20 | - | mA |
| | | V _R =45V T _A =100°C | - | 20 | - | mA |

Note : 1. Infinite heatsink.

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RATINGS AND CHARACTERISTIC CURVES



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