

MBRF16H35 SERIES

SCHOTTKY BARRIER RECTIFIERS

PRV : 35 - 60 Volts

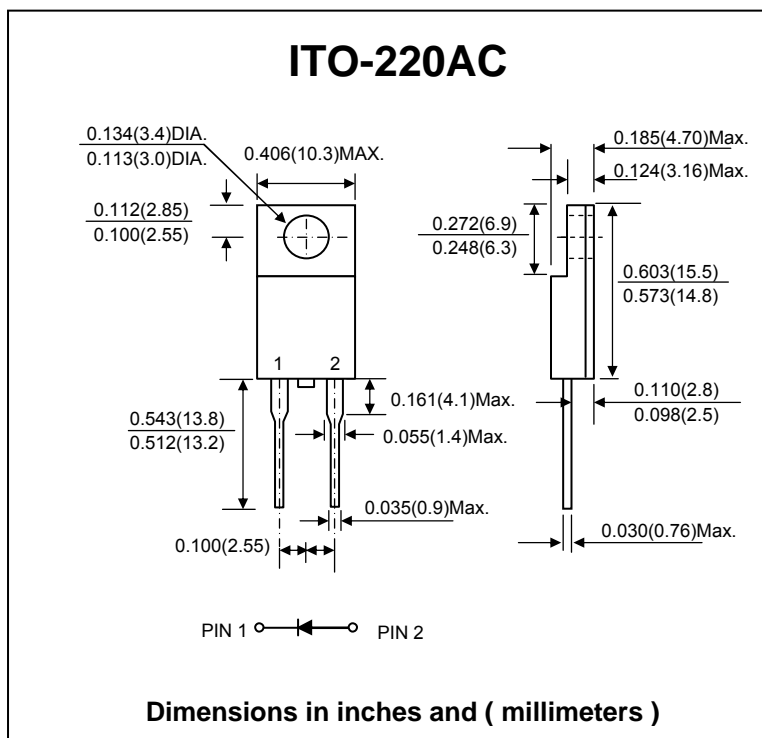
Io : 16 Ampere

FEATURES :

- * High current capability
- * High surge current capability
- * Low leakage, high voltage
- * Glass passivated chip junction
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : Epoxy, Molded
- * Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds
- * Polarity: As marked
- * Mounting Position: Any
- * Weight : 2.24 grams (Approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_c = 25°C unless otherwise noted)

| RATING | SYMBOL | MBRF16H35 | MBRF16H45 | MBRF16H50 | MBRF16H60 | UNIT |
|--|--------------------|-------------------------|-----------|-----------|-----------|------|
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 35 | 45 | 50 | 60 | V |
| Maximum Working peak Reverse Voltage | V _{RWM} | 35 | 45 | 50 | 60 | V |
| Maximum DC blocking voltage | V _{DC} | 35 | 45 | 50 | 60 | |
| Maximum Average Forward Current | I _{F(AV)} | 16 | | | | A |
| Maximum Peak Forward Surge Current 8.3ms single half sine-wave superimposed | I _{FSM} | 150 | | | | A |
| Maximum Instantaneous Forward Voltage at I _F = 16A, (Note 1) | V _F | T _J = 25 °C | 0.66 | | 0.73 | V |
| | | T _J = 125 °C | 0.56 | | 0.62 | |
| Maximum Reverse Current at Rated DC Blocking Voltage (Note 1) | I _R | T _J = 25 °C | 100 | | | μA |
| | | T _J = 125 °C | 20 | | | mA |
| Maximum Thermal Resistance, Junction to Case | R _{θJC} | 3.0 | | | | °C/W |
| Operating Junction Temperature Range | T _J | - 65 to + 175 | | | | °C |
| Storage Temperature Range | T _{STG} | - 65 to + 175 | | | | °C |
| RMS Isolation Voltage from terminals to heatsink with t = 1.0 second, RH ≤30% | V _{ISOL} | 4500 ⁽²⁾ | | | | V |
| | | 3500 ⁽³⁾ | | | | |
| | | 1500 ⁽⁴⁾ | | | | |

- Notes:** (1) Pluse test: 300μs pulse width, 1% duty cycle
 (2) Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset
 (3) Clip mounting (on case), where leads do overlap heatsink
 (4) Screw mounting with 4-40 screw, where washer diameter is ≤ 4.9 mm (0.19")

RATING AND CHARACTERISTIC CURVES (MBRF16H35 SERIES)

FIG.1 - FORWARD CURRENT DERATING CURRENT

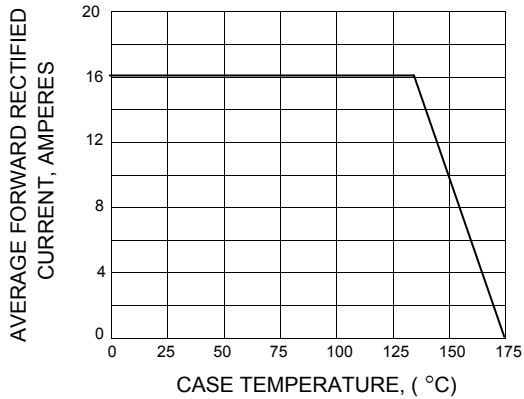


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

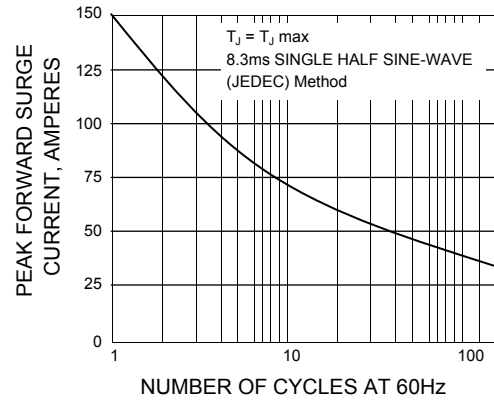


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

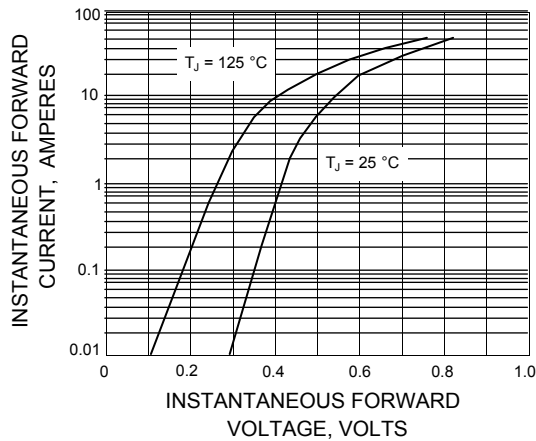


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

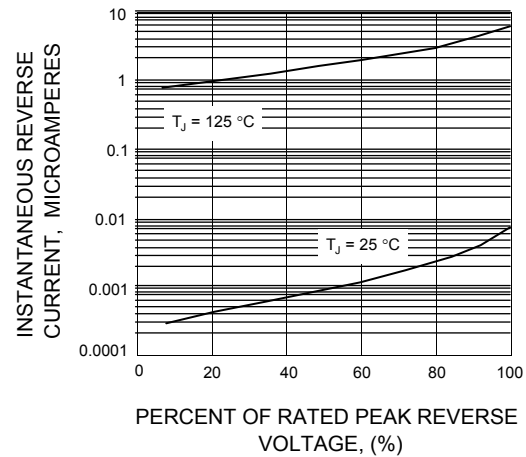


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

