

MBRF16H35 SERIES

SCHOTTKY BARRIER RECTIFIERS

PRV : 35 - 60 Volts

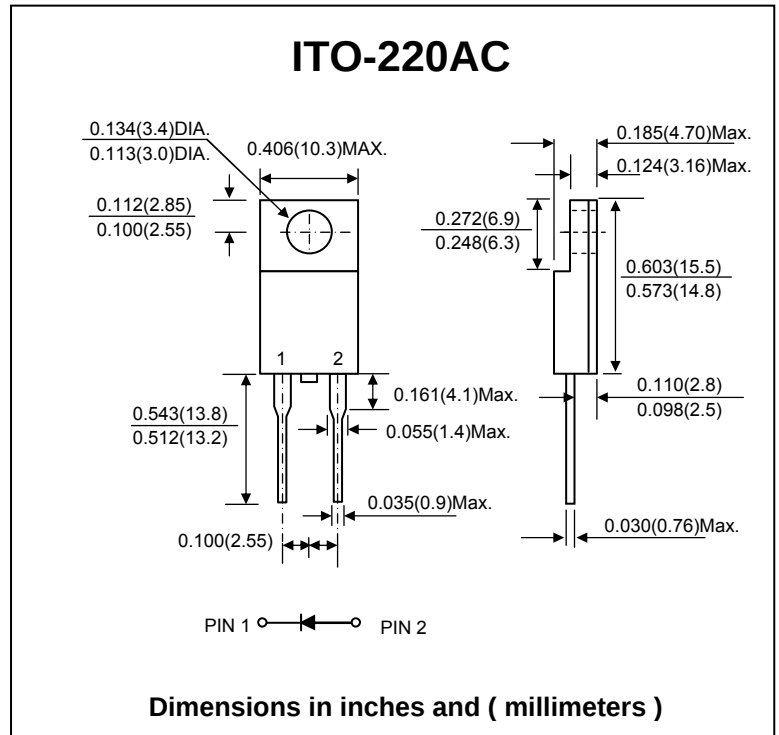
Io : 16 Ampere

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)



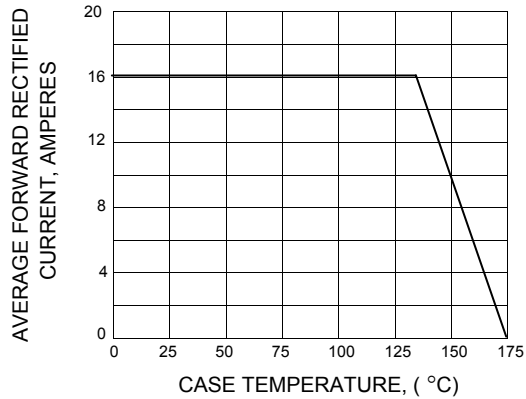
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_c = 25°C unless otherwise noted)

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	0.66		0.73		V
T _J = 25 °C		0.56		0.62		
Maximum Reverse Current at Rated DC Blocking Voltage (Note 1)	T _J = 25 °C T _J = 125 °C	I _R	100			μA
		I _{R(H)}	20			mA
Maximum Thermal Resistance, Junction to Case		R _{θJC}	3.0			°C/W
Operating Junction Temperature Range		T _J	- 65 to + 175			°C
Storag 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⁾ 3500 ⁽³⁾ 1500 ⁽⁴⁾			V

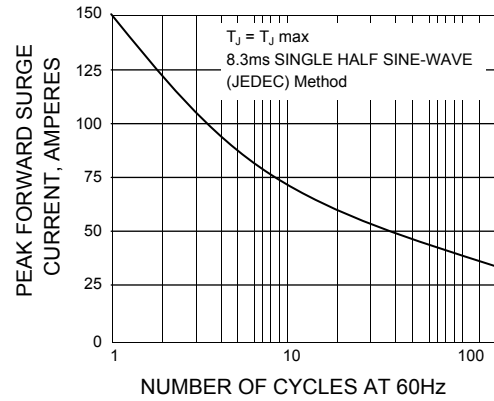
- Notes:** (1) Pulse test: 300μs pulse width, 1% duty cycle
(2) Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset
(3) Clip mounting (on case), where leads do overlap heatsink
(4) Screw mounting with 4-40 screw, where washer diameter is ≤ 4.9 mm (0.19")

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**

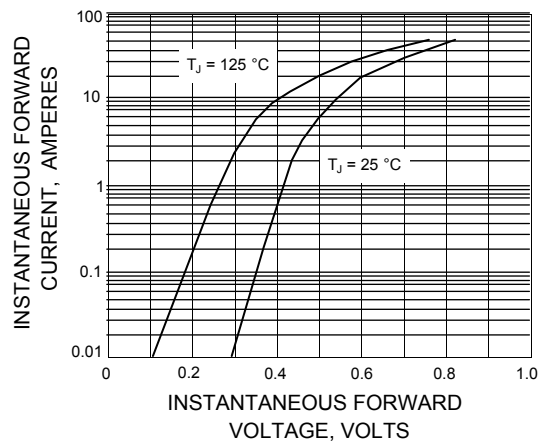


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

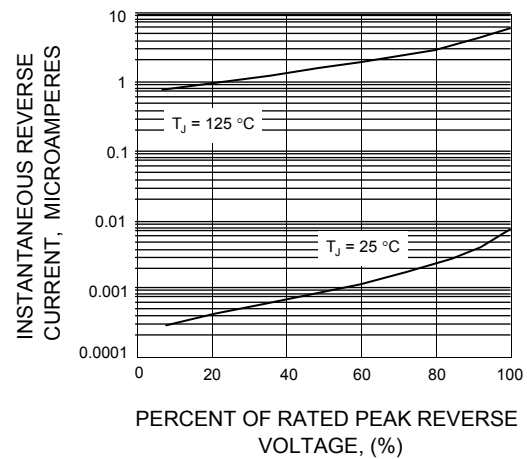


FIG. 5 – TYPICAL JUNCTION CAPACITANCE

