

# MBRF16H35 SERIES

# SCHOTTKY BARRIER RECTIFIERS

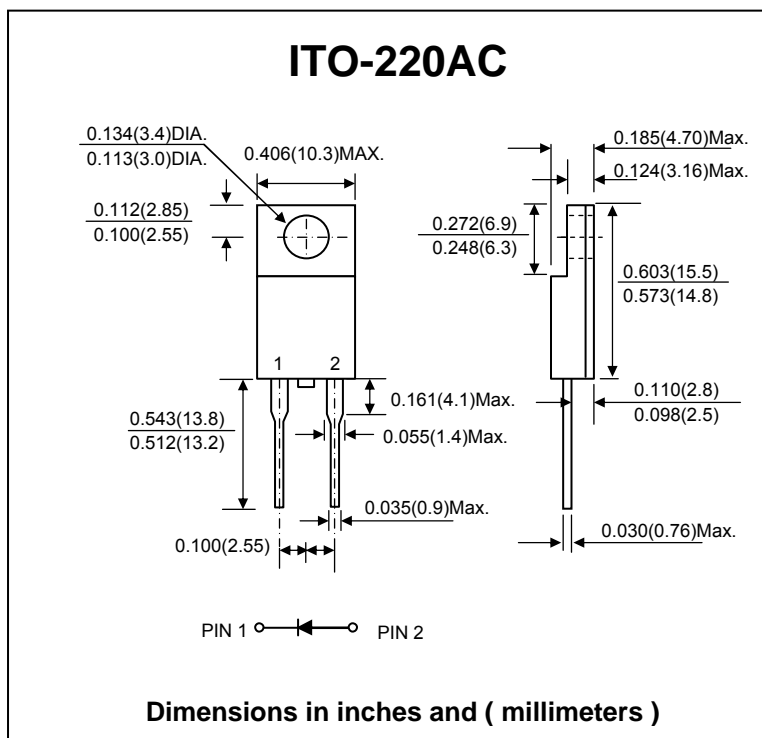
**PRV : 35 - 60 Volts**  
**Io : 16 Ampere**

## 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)



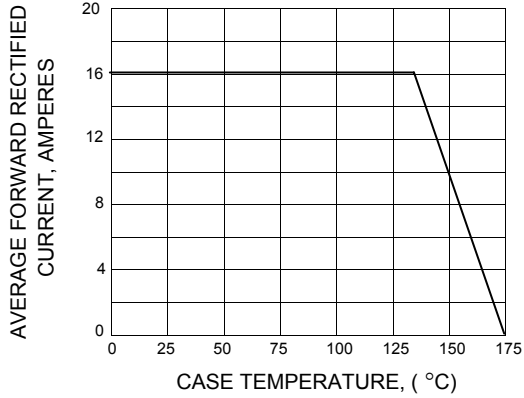
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>c</sub> = 25°C unless otherwise noted)

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

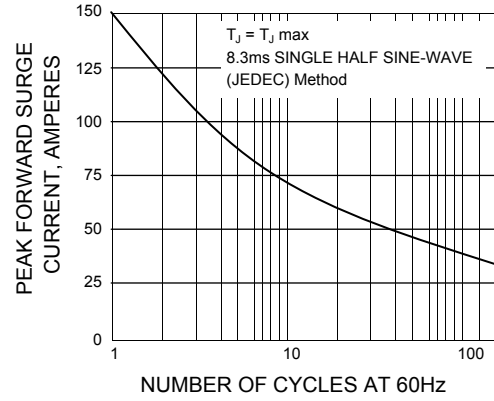
- Notes:** (1) Pulse test: 300μs pulse width, 1% duty cycle  
(2) Clip mounting (on case), where lead does not overlap heatsink with 0.110" offset  
(3) Clip mounting (on case), where leads do overlap heatsink  
(4) Screw mounting with 4-40 screw, where washer diameter is ≤ 4.9 mm (0.19")

**RATING AND CHARACTERISTIC CURVES ( MBRF16H35 SERIES )**

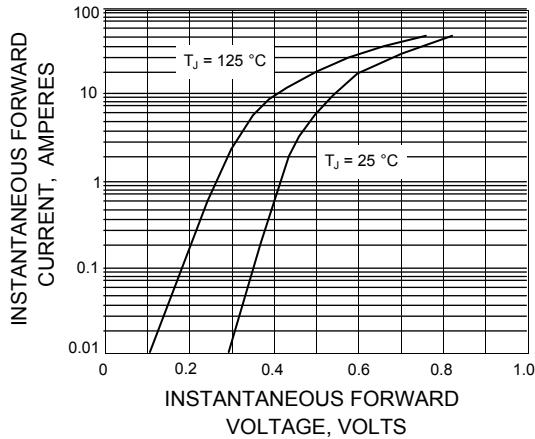
**FIG.1 - FORWARD CURRENT DERATING CURRENT**



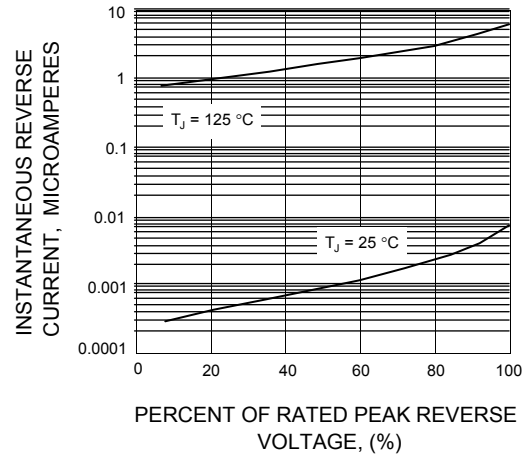
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**

