

MBRF16H35 SERIES

SCHOTTKY BARRIER RECTIFIERS

PRV : 35 - 60 Volts

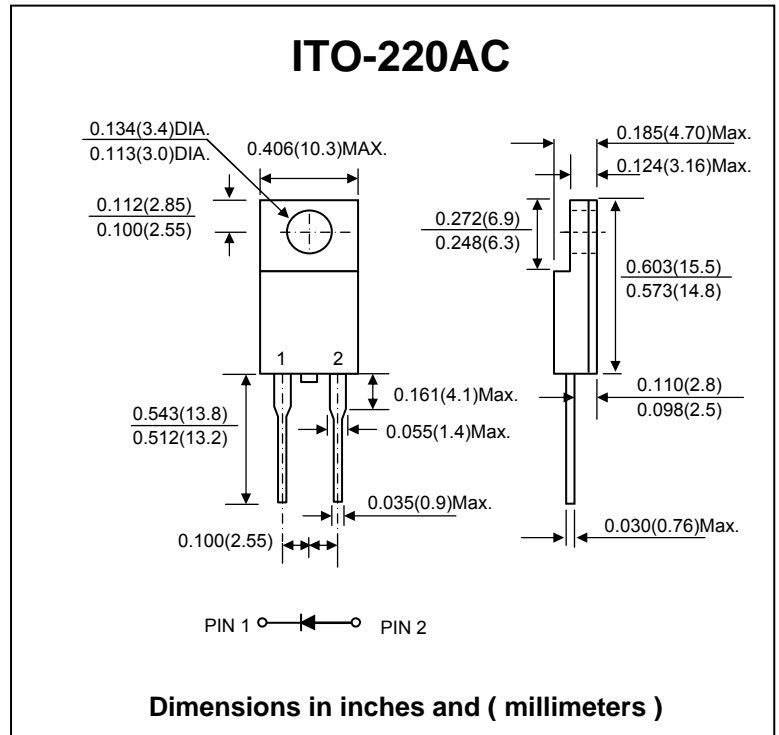
Io : 16 Ampere

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

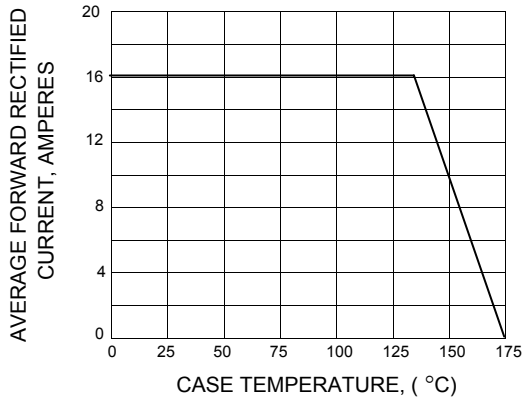


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

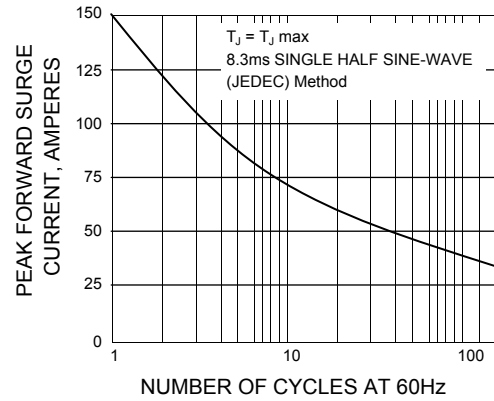


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

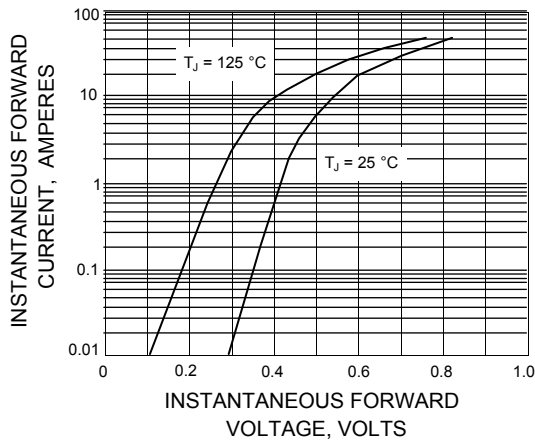


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

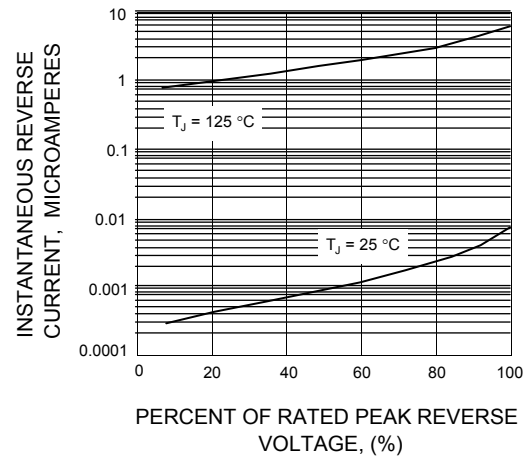


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

