

MBR1090 ~ MBR10100

SCHOTTKY BARRIER RECTIFIER DIODES

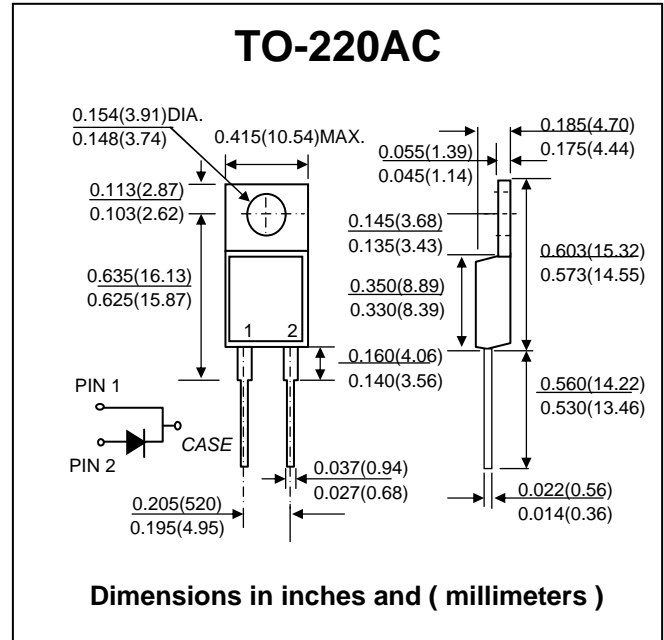
PRV : 90~100 Volts
Io : 10 Amperes

FEATURES :

- * Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- * Metal silicon junction, majority carrier conduction
- * Low power loss, high efficiency
- * Guardring for overvoltage protection
- * For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- * High temperature soldering : 250°C/10 seconds, 0.25" (6.35mm) from case
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : JEDEC TO-220AC molded plastic body
- * Terminals: Plated leads, solderable per MIL-STD-750 Method 2026
- * Polarity: As marked
- * Mounting Position: Any
- * Weight : 2.24 grams (Approximately)



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

RATINGS	SYMBOL	MBR1090	MBR10100	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	90	100	V
Maximum Working Peak Reverse Voltage	V _{RWM}	90	100	V
Maximum DC Blocking Voltage	V _{DC}	90	100	V
Maximum Average Forward Rectified Current at T _c = 133 °C	I _{F(AV)}	10		A
Peak Forward Surg Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	150		A
Maximum Instantaneous Forward Voltage (Note 1) at I _F = 10 A, T _C = 25 °C at I _F = 10 A, T _C = 125 °C	V _F	0.80		V
		0.65		
Maximum Average Reverse Current at T _J = 25 °C Rate Peak Reverse Voltage (Note 1) T _J = 100 °C	I _R	0.1		mA
		6.0		
Typical Thermal Resistance (Junction to Ambient)	R _{θJA}	60		°C/W
Typical Thermal Resistance (Junction to Case)	R _{θJC}	2.0		°C/W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-65 to + 175		°C

Note :

(1) Pulse test : 300 μs pluse width, 1% duty cycle

RATING AND CHARACTERISTIC CURVES (MBR1090 ~ MBR10100)

FIG.1 - FORWARD CURRENT DERATING CURVE

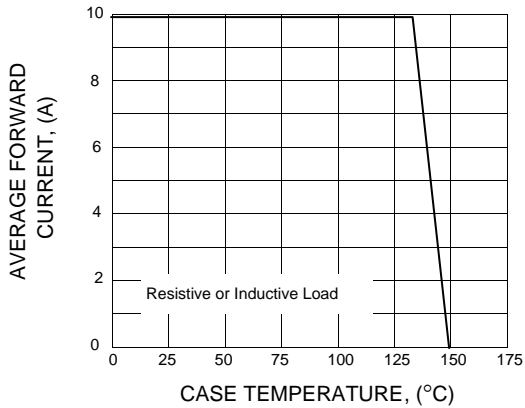


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

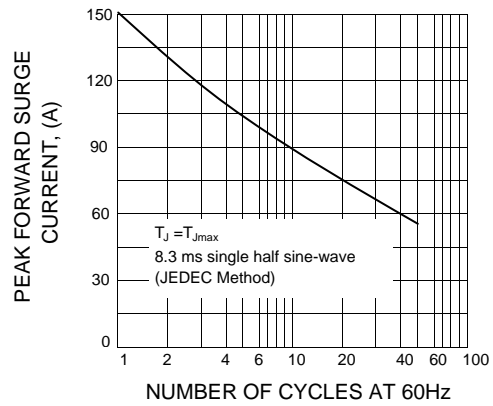


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

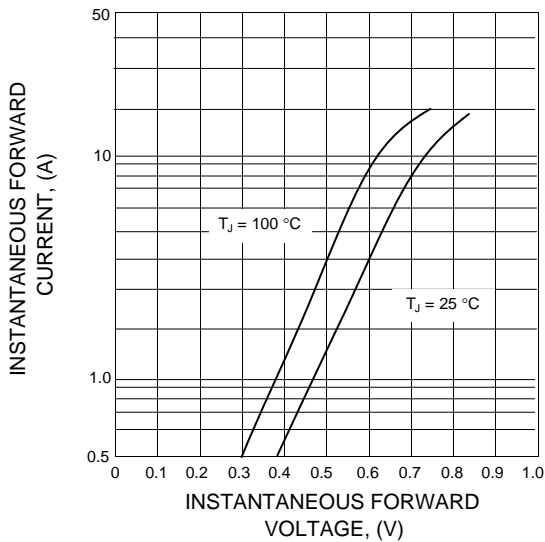


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

