

MBR1090CT ~ MBR10100CT

SCHOTTKY BARRIER RECTIFIER DIODES

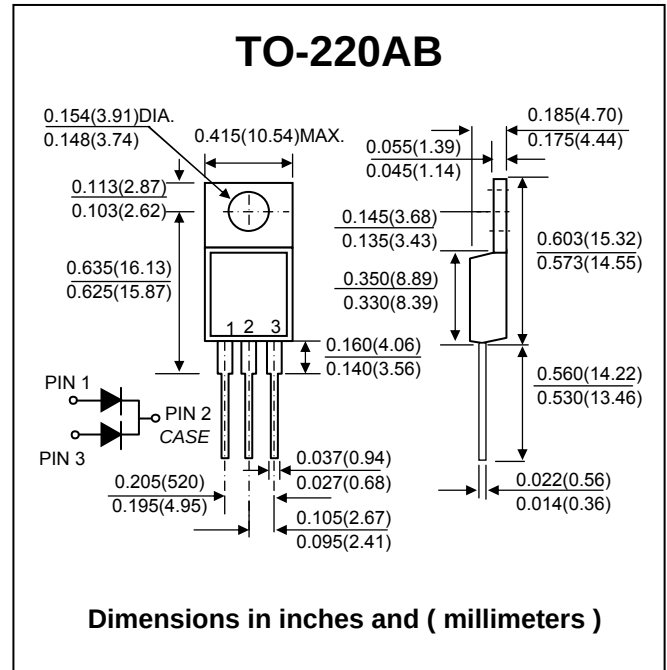
PRV : 90~100 Volts
Io : 10 Amperes

FEATURES :

- * Guardring for overvoltage protection
- * Low power loss, high efficiency
- * Low forward voltage drop
- * High forward surge capability
- * High frequency operation
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : TO-220AB Molded plastic
- * Polarity : As marked on the body
- * Mounting position : Any
- * Weight : 2.24 grams



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

RATINGS	SYMBOL	MBR1090CT	MBR10100CT	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 = 105 °C	I _{F(AV)}	10	5.0	A
Peak Forward Surg Current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	120		A
Maximum Instantaneous Forward Voltage (Note 1) at I _F = 5 A, T _C = 25 °C at I _F = 5 A, T _C = 125 °C	V _F	0.85 0.75		V
Maximum Average Reverse Current at T _J = 25 °C Rate Peak Reverse Voltage (Note 1) T _J = 100 °C	I _R	0.1 6.0		mA
Typical Thermal Resistance (Junction to Case)	R _{θJC}	4.4		°C/W
Operating Junction and Storage Temperature Range	T _J , T _{STG}	-65 to + 150		°C

Note :

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

RATING AND CHARACTERISTIC CURVES (MBR1090CT ~ MBR10100CT)

FIG.1 - FORWARD CURRENT DERATING CURVE

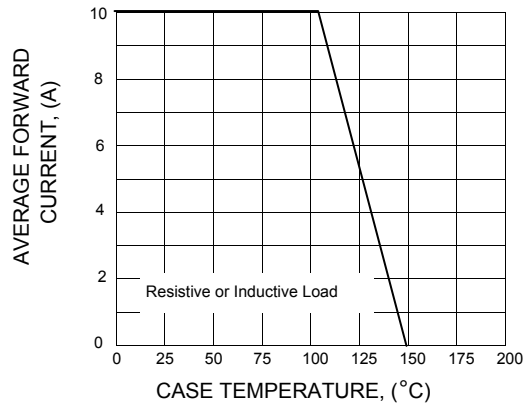


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

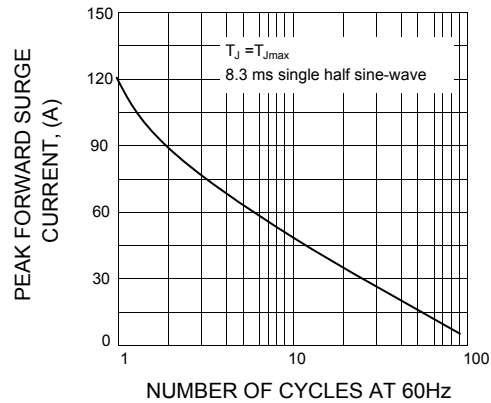


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS (PER DIODE)

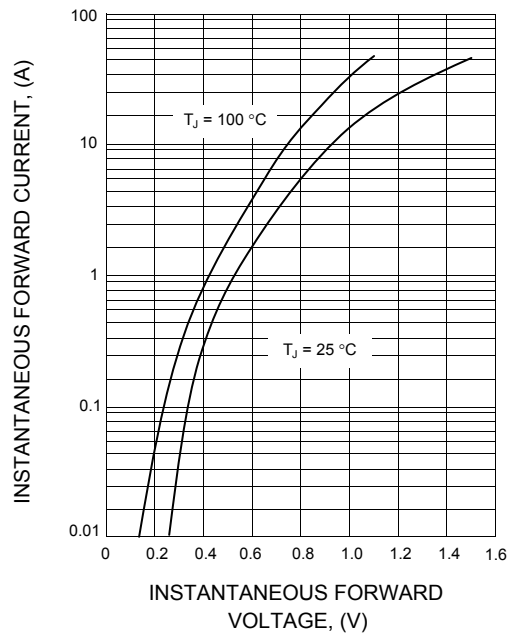


FIG.4 - TYPICAL REVERSE CHARACTERISTICS (PER DIODE)

