

MBR16100CT

PRV : 100 Volts

Io : 16 Amperes

FEATURES :

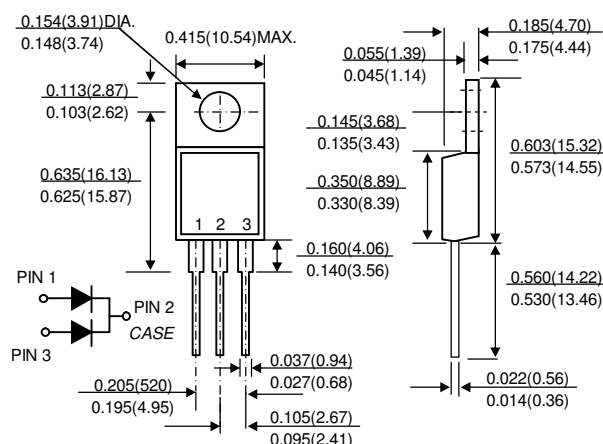
- * High current capability
- * High surge current capability
- * High reliability
- * Low forward voltage drop
- * High surge capability
- * Pb / RoHS Free

MECHANICAL DATA :

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

SCHOTTKY BARRIER RECTIFIER DIODE

TO-220AB



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATINGS	SYMBOL	VALUE	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	V
Maximum Working Peak Reverse Voltage	V_{RWM}	100	V
Maximum DC Blocking Voltage	V_{DC}	100	V
Maximum Average Forward Current, $T_c = 133^{\circ}\text{C}$	$I_{F(AV)}$	8 (Per Diode) 16 (Total Device)	A
Maximum Non-repetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	I_{FSM}	150	A
Maximum Forward Voltage at $I_F = 8\text{ A}$, $T_c = 25^{\circ}\text{C}$ at $I_F = 16\text{ A}$, $T_c = 25^{\circ}\text{C}$	V_F	0.74 0.84	V
Maximum Instantaneous Reverse Current (Pulse Test: Pulse Width = 300 μs , Duty Cycle $\leq 2\%$.)	I_R	0.1 ($T_c = 25^{\circ}\text{C}$)	mA
	$I_{R(H)}$	5.0 ($T_c = 125^{\circ}\text{C}$)	mA
Typical Thermal Resistance	$R_{\theta JA}$	60	$^{\circ}\text{C/W}$
Operating Temperature Range	T_j	- 65 to + 175	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	- 55 to + 175	$^{\circ}\text{C}$

RATING AND CHARACTERISTIC CURVES (MBR16100CT)

FIG.1 - CURRENT DERATING CURVE, PER DIODE

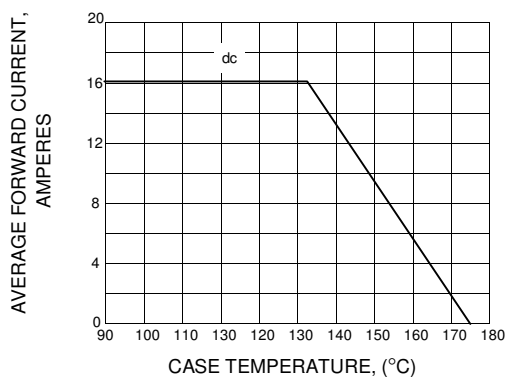


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

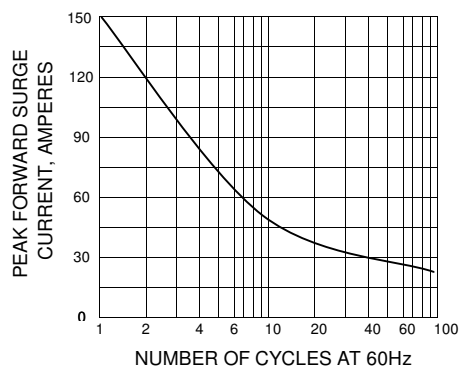


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

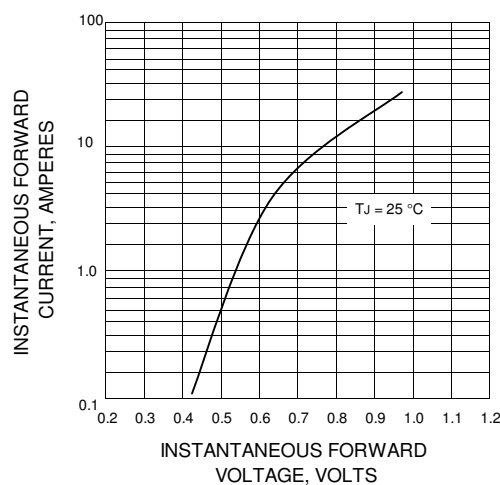


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

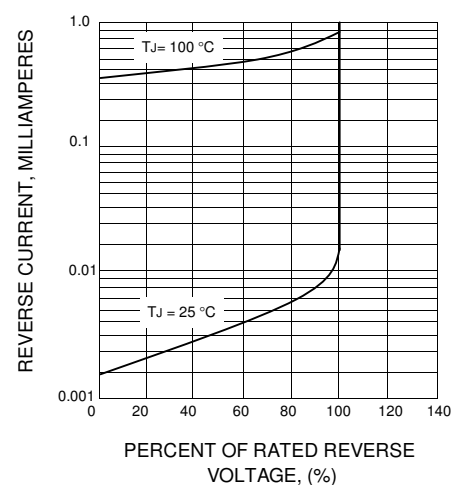


FIG.5 - AVERAGE POWER DISSIPATION

