Certificate Number: Q10561

Certificate Number: E17276

MBR16100CT

SCHOTTKY BARRIER RECTIFIER DIODE

PRV : 100 Volts
Io : 16 Amperes

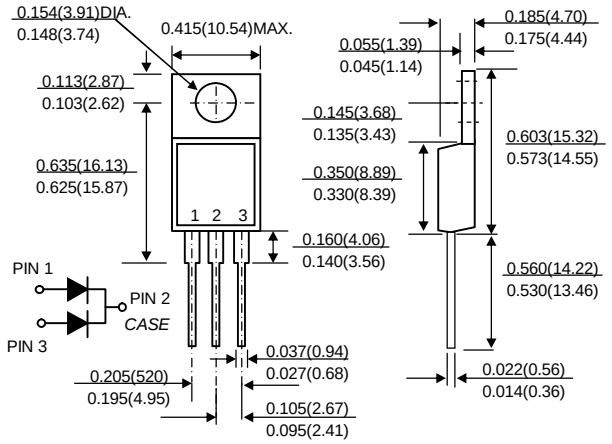
FEATURES :

* 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

TO-220AB



Dimensions in inches and (millimeters)

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, Tc = 133°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 A, Tc = 25°C at I_F = 16 A, Tc = 25°C	V_F	 0.74 0.84	V
Maximum Instantaneous Reverse Current	I_R	0.1 (Tc = 25°C)	mA
(Pulse Test: Pulse Width = 300µs, Duty Cycle ≤ 2%.)	$I_{R(H)}$	5.0 (Tc = 125°C)	mA
Typical Thermal Resistance	RθJA	60	°C/W
Operating Temperature Range	Tj	- 65 to + 175	°C
Storage Temperature Range	TSTG	- 55 to + 175	°C

RATING AND CHARACTERISTIC CURVES (MBR16100CT)

FIG.1 - CURRENT DERATING CURVE, PER DIODE

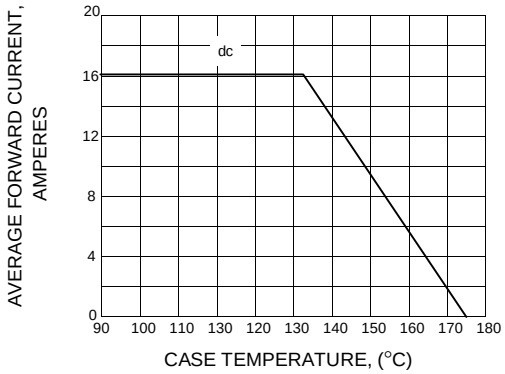


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

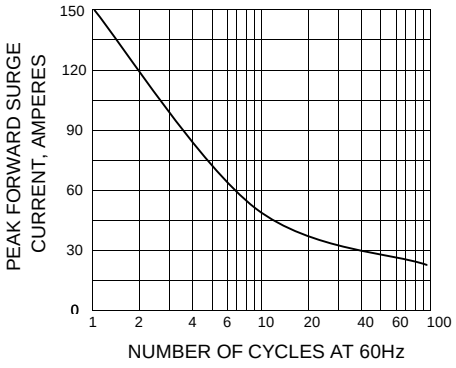


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

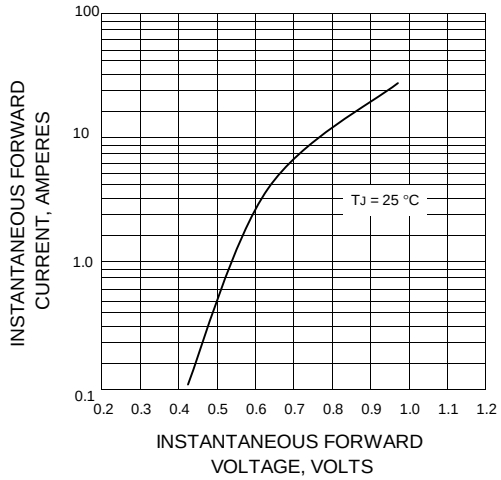


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

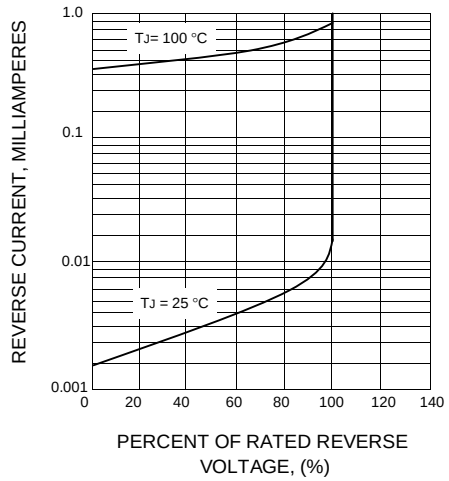


FIG.5 - AVERAGE POWER DISSIPATION