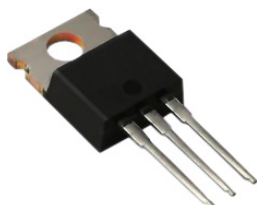


Schottky Barrier Rectifier



Features:

- Schottky barrier chip
- Guard ring for over voltage protection
- Low power loss, high efficiency
- Low reverse leakage current
- High surge current capability
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters mode power supplies, freewheeling diode and polarity protection application

Mechanical Data:

Case	: TO-220AB Type, molded plastic
Terminals	: Pure tin plated, lead solderable per MIL-STD-750, method 2026
Polarity	: As marked on the body
Weight	: 1.9 grams
Mounting Position	: Any
Reverse Voltage	: 40 to 100 Volts
Forward Current	: 16 Amperes

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	MBR1640CT	MBR1645CT	MBR16100CT	Unit
Max. Recurrent Peak Reverse Voltage	V _{RRM}	40	45	100	V
Max. RMS Voltage	V _{RMS}	28	31.5	70	
Max. DC Blocking Voltage	V _{DC}	40	45	100	
Max. Average Forward	I _{F(AV)}	16			A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	150			
Max. Forward Voltage at 8A per leg	V _F	0.7		0.85	V
Max. DC Reverse Current at T _J = 25°C Rated DC Blocking Voltage at T _J = 125°C	I _R	0.15 15		0.1 7.5	mA
Typical Thermal Resistance, Junction to Case	R _{θJC}	2			°C/W
Operating Temperature Range	T _J	-55 to +150			°C
Storage Temperature Range	T _{STG}	-55 to +150			°C

Notes:

1. Mounted on 14mm × 14mm pad areas, 1oz. FR4 P.C.B
2. Free air, mounted on recommended copper pad area
3. Pulse test: 300μs pulse width, 1% duty cycle
4. Pulse test: Pulse width ≤ 40ms

Schottky Barrier Rectifier

Ratings and Characteristic Curves

Fig-1. Forward Current Derating Curve

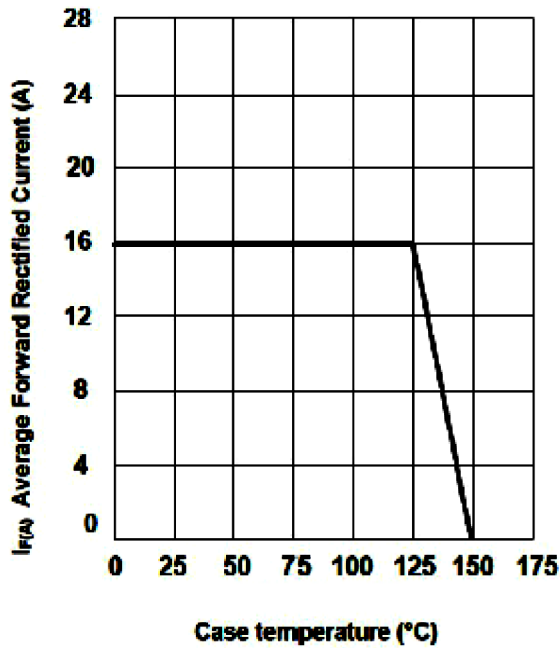


Fig-2. Typical Instantaneous forward Characteristic

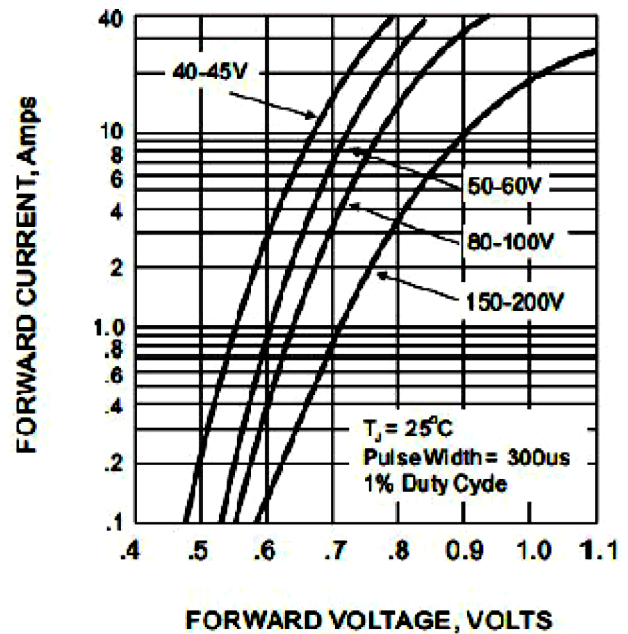


Fig-3. Typical Reverse Characteristics

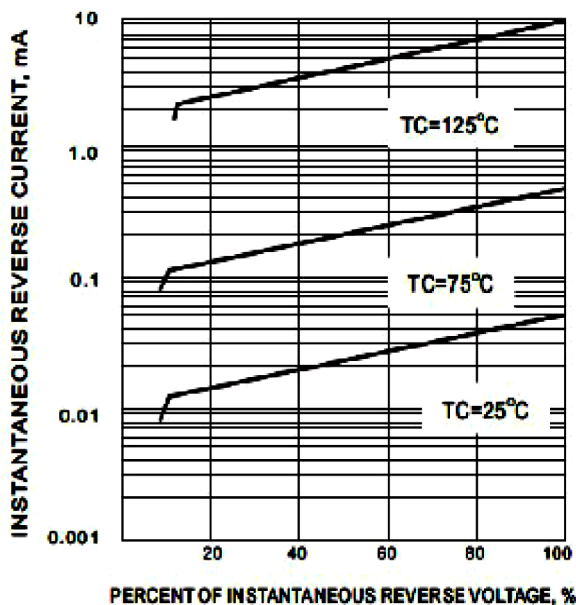
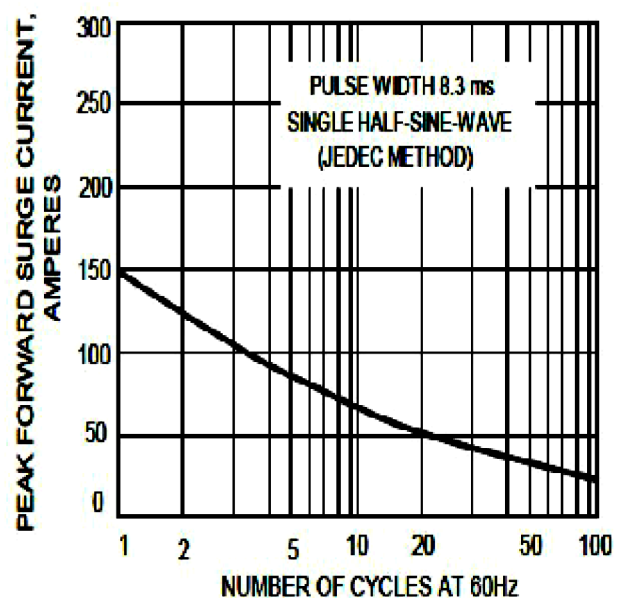
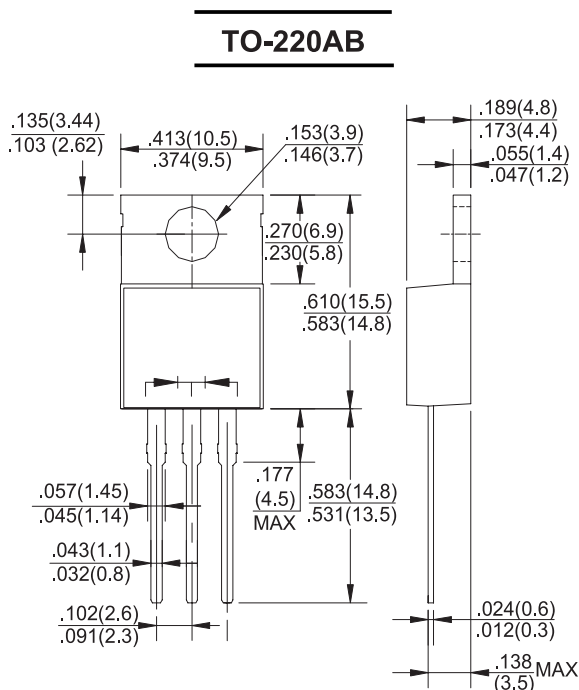


Fig-4. Max. Non-Repetitive Surge Current



Schottky Barrier Rectifier

Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR1640CT
	MBR1645CT
	MBR16100CT

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