

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 $T_J = 25^\circ\text{C}$ Rated DC Blocking Voltage at $T_J = 125^\circ\text{C}$	I_R	0.15 15		0.1 7.5	mA
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	2			$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150			$^\circ\text{C}$

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 $\leq 40\text{ms}$

Ratings and Characteristic Curves

Fig-1. Forward Current Derating Curve

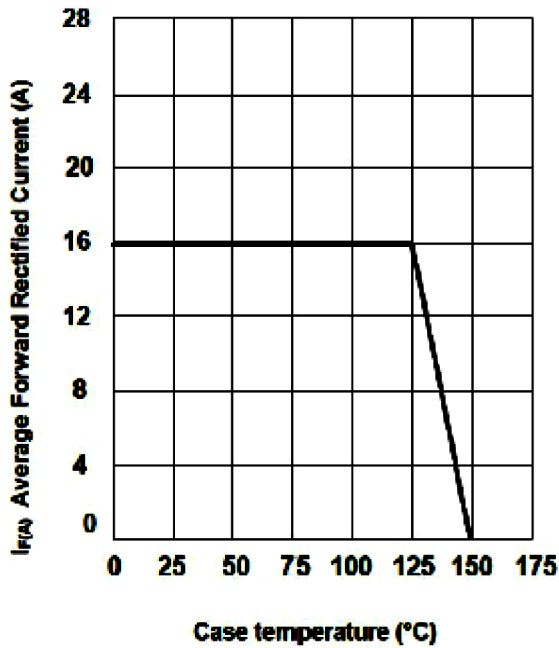


Fig-2. Typical Instantaneous forward Characteristic

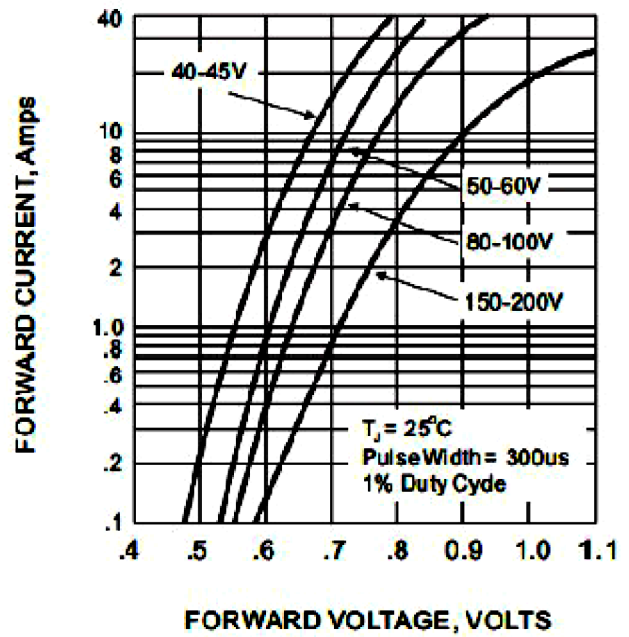


Fig-3. Typical Reverse Characteristics

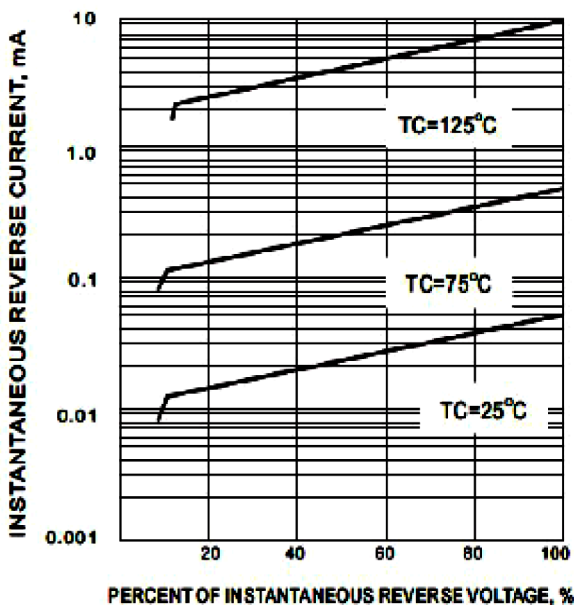
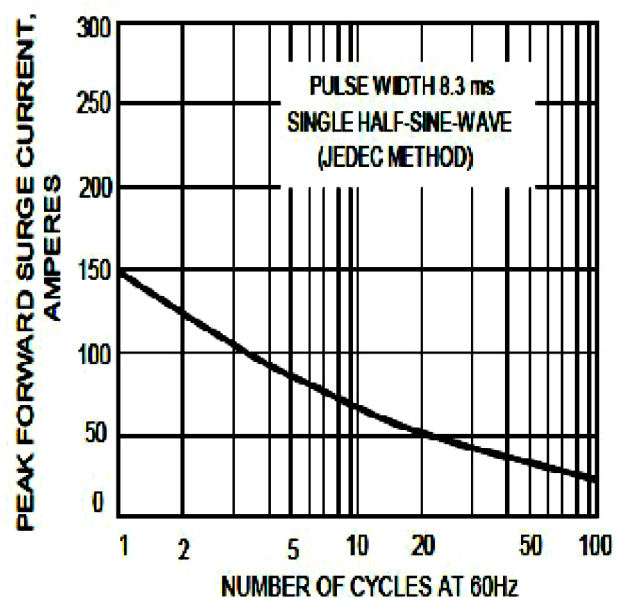
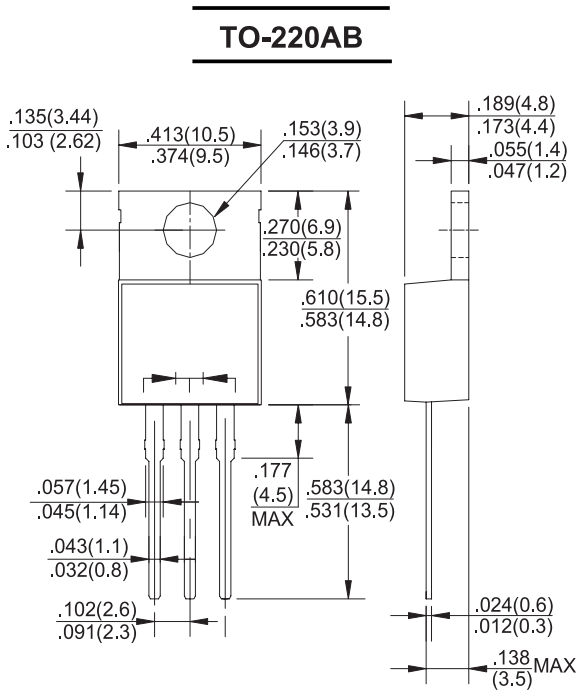


Fig-4. Max. Non-Repetitive Surge Current



Dimensions:



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Schottky Barrier Rectifiers	MBR1640CT
	MBR1645CT
	MBR16100CT

Important Notice : This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

Newark.com/multicomp-pro
 Farnell.com/multicomp-pro
 Element14.com/multicomp-pro