



#### **SCHOTTKY BARRIER RECTIFIERS**

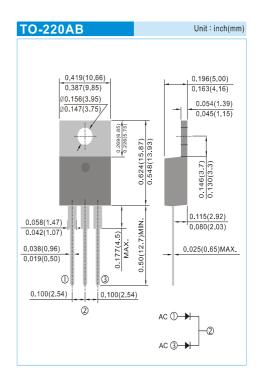
VOLTAGE 40 to 200 Volt CURRENT 6 Ampere

#### **FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- · Low power loss, high efficiency.
- Low forward voltage, high current capability.
- · High surge capacity.
- For use in low voltage, high frequency inverters free wheeling, and polarlity protection applications.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

#### **MECHANICAL DATA**

- · Case: TO-220AB full molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- · Polarity: As marked.
- Weight: 0.067 ounces, 1.89 grams



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

PARAMETER	SYMBOL	MBR640CT	MBR645CT	MBR650CT	MBR660CT	MBR680CT	MBR690CT	MBR6100CT	MBR6150CT	MBR6200CT	UNITS
Maximum Recurrent Peak Reverse Voltage		40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage		28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current (See Figure 1)	I <sub>F(AV)</sub>	6				А					
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	75						А			
Maximum Forward Voltage at 3A per leg	V <sub>F</sub>	0.7 0.75 0.8 0.90		90	٧						
Maximum DC Reverse Current at Rated DC TJ=25°C Blocking Voltage TJ=100°C	I <sub>R</sub>	0.05 20						mA			
Typical Thermal Resistance	R <sub>eJC</sub>	3				°C / W					
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150 -65 to +175				°C					

NOTES: Both Bonding and Chip structure are available.





#### **RATING AND CHARACTERISTIC CURVES**

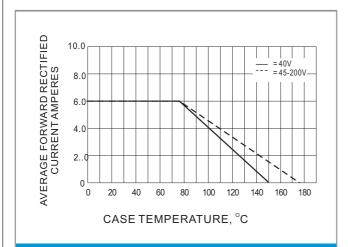


Fig. 1- FORWARD CURRENT DERATING CURVE

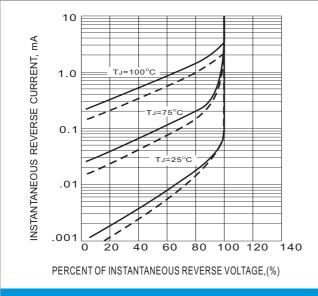


Fig.3-TYPICAL REVERSE CHARACTERISTIC

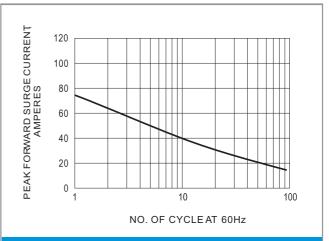


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

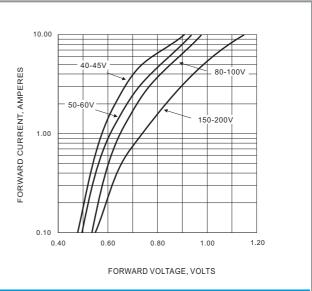


Fig.4- TYPICAL INSTANTANEOUS FORWARD
CHARACTERISTIC





Part No\_packing code\_Version

MBR640CT\_T0\_00001

# For example : RB500V-40\_R2\_00001 Part No. Serial number Version code means HF Packing size code means 13" Packing type means T/R

Packing Code XX					Version Code XXXXX				
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code			
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number			
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number			
Bulk Packing (B/P)	В	13"	2						
Tube Packing (T/P)	Т	26mm	X						
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y						
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U						
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D						





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