



#### SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 40 to 200 Volt CURRENT 30 Ampere

### **FEATURES**

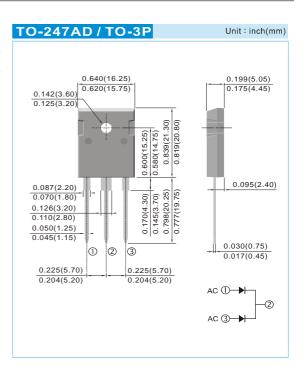
 Plastic package has Underwriters Laboratory Flammability Classification 94V-O.

Flame Retardant Epoxy Molding Compound.

- Low power loss, high efficiency.
- · High current capability
- Guardring for overvoltage protection
- 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

#### **MECHANICAL DATA**

- Case: TO-247AD/TO-3P molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- · Polarity: As marked.
- Weight: 0.2245 ounces, 6.3673 grams.



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

PARAMETER	SYMBOL	MBR3040PT	MBR3045PT	MBR3050PT	MBR3060PT	MBR3080PT	MBR3090PT	MBR30100PT	MBR30150PT	MBR30200PT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	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	I <sub>F(AV)</sub>	30							А		
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	275							А		
Maximum Forward Voltage at 15A per leg	V <sub>F</sub>	0.7 0.75 0.8 0.9				.9	V				
Maximum DC Reverse Current at $T_j=25$ °C Rated DC Blocking Voltage $T_j=125$ °C	I <sub>R</sub>	0.1 0.05 20 20							mA		
Typical Thermal Resistance	R <sub>eJC</sub>	1.4							°C / W		
Operating Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-50 to + 150 -65 to +175							°C		

Note: Both Bonding and Chip structure are available.





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

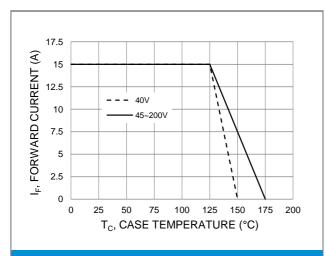


Fig.1-FORWARD CURRENT DERATING CURVE

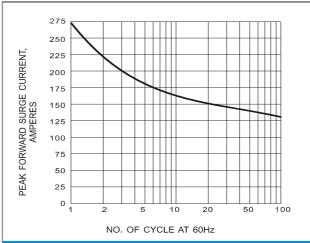


Fig.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

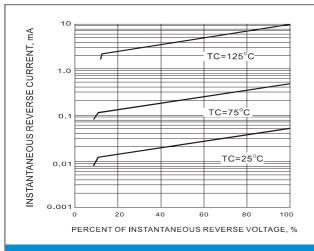


Fig.3-TYPICAL REVERSE CHARACTERISTIC

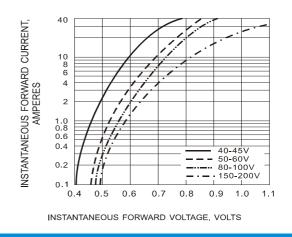


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

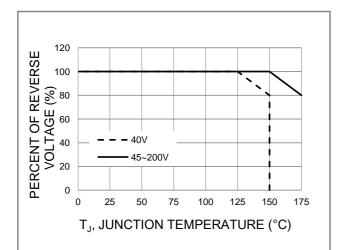


Fig.5- OPERATING TEMPERATURE DERATING CURVE





## Part No\_packing code\_Version

MBR3004PT\_T0\_00001 MBR3004PT\_T0\_10001

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

	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)	A	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	Х			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Υ			
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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