

# MBR6040PT SERIES

## SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 40 to 200 Volt **CURRENT** 60 Ampere

### FEATURES

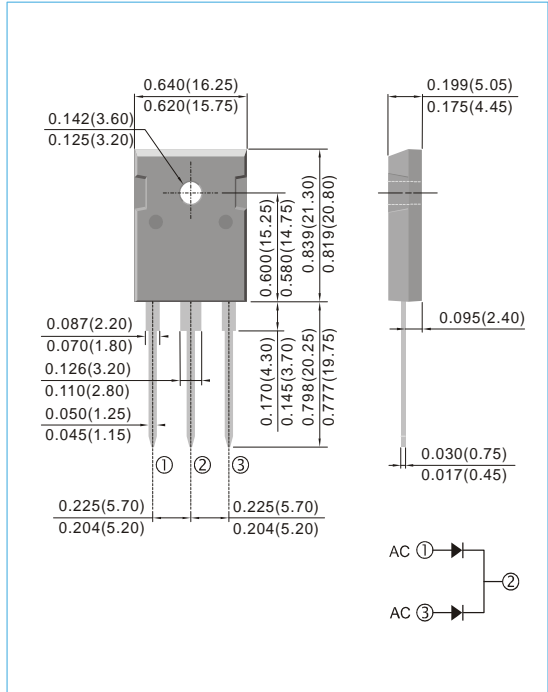
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Flame Retardant Epoxy Molding Compound
- Low power loss, high efficiency
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- Lead free in compliance with EU RoHS 2011/65/EU directives

### 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.

### TO-247AD / TO-3P

Unit : inch(mm)



### 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	MBR6040PT	MBR6045PT	MBR6050PT	MBR6060PT	MBR6080PT	MBR6090PT	MBR60100PT	MBR60150PT	MBR60200PT	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>	60									A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	400									A
Maximum Forward Voltage at 30A per leg	V <sub>F</sub>	0.7		0.79		0.8			0.9		V
Maximum DC Reverse Current at T <sub>J</sub> =25°C Rated DC Blocking Voltage T <sub>J</sub> =100°C	I <sub>R</sub>	0.1 20					0.05 20				mA
Typical Thermal Resistance	R <sub>θJC</sub>	1.5									°C / W
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150	-65 to +175								°C

Note :

Both Bonding and Chip structure are available.

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## RATING AND CHARACTERISTIC CURVES

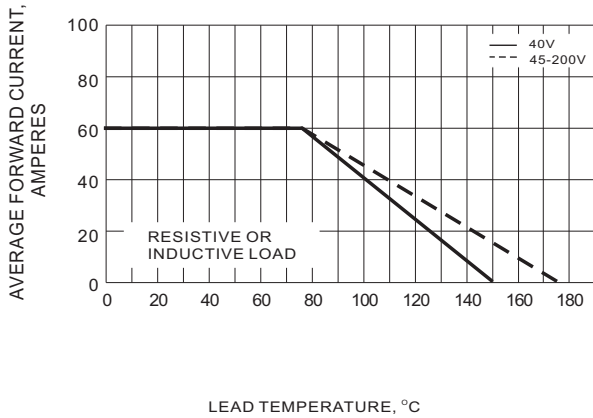


Fig.1 FORWARD CURRENT DERATING CURVE

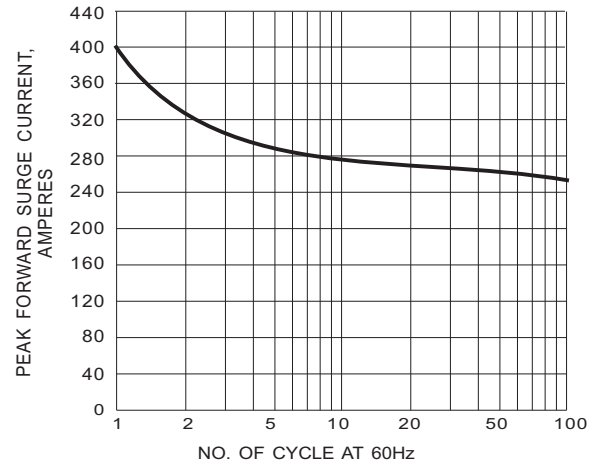


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

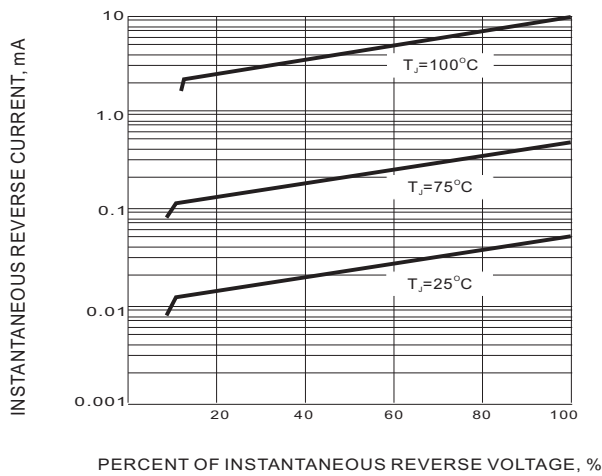


Fig.3 TYPICAL REVERSE CHARACTERISTIC

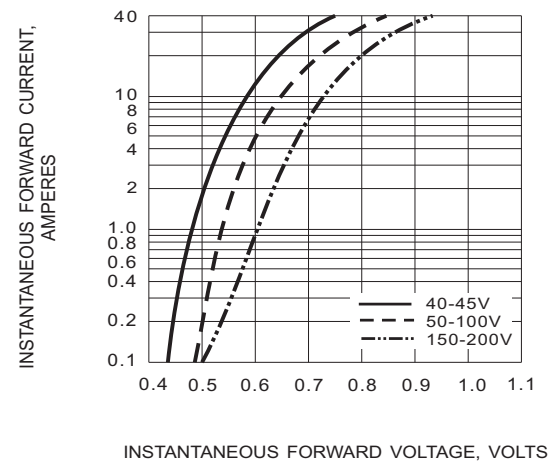


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

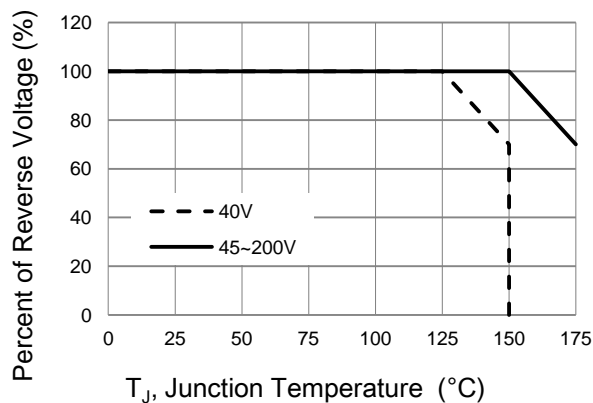


Fig.5 Operating Temperature Derating Curve

## MBR6040PT SERIES

### Part No\_packing code\_Version

MBR6040PT\_T0\_00001

MBR6040PT\_T0\_10001

For example :

RB500V-40\_R2\_00001



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)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	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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