MBR3040CT SERIES

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 40 to 200 Volt **CURRENT** 30 Ampere

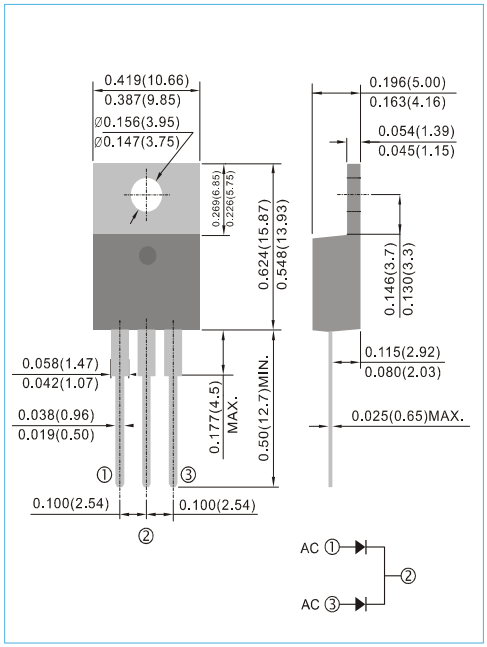
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- High current capability
- 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 molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Weight: 0.067 ounces, 1.89 grams.

TO-220AB 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	MBR3040CT	MBR3045CT	MBR3050CT	MBR3060CT	MBR3080CT	MBR3090CT	MBR30100CT	MBR30150CT	MBR30200CT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current	$I_{F(AV)}$	30									A
Peak Forward Surge Current : 8.3 ms single half sine-wave superimposed on rated load per diode	I_{FSM}	275									A
Maximum Forward Voltage at 15A per leg	V_F	0.7		0.75		0.8			0.9		V
Maximum DC Reverse Current T_J=25°C at Rated DC Blocking Voltage T_J=125°C	I_R	0.1 20						0.05 20			mA
Typical Thermal Resistance	$R_{\theta JC}$	1.4									°C / W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to + 150	-65 to + 175								°C

Note :

Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

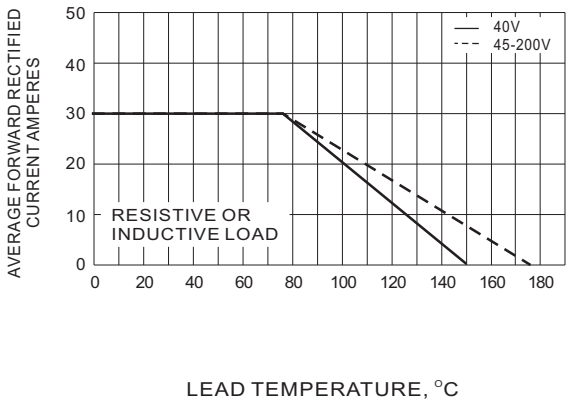

Fig.1 FORWARD CURRENT DERATING CURVE

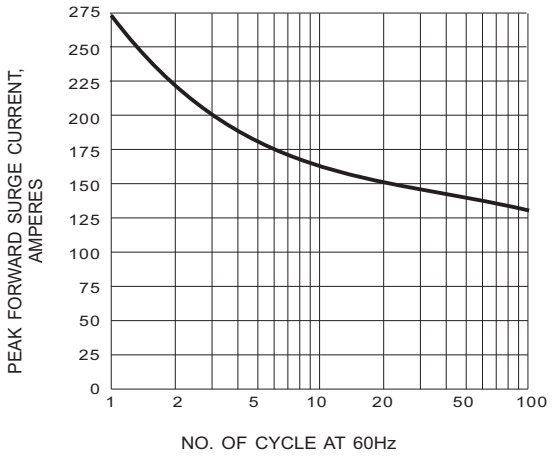

Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

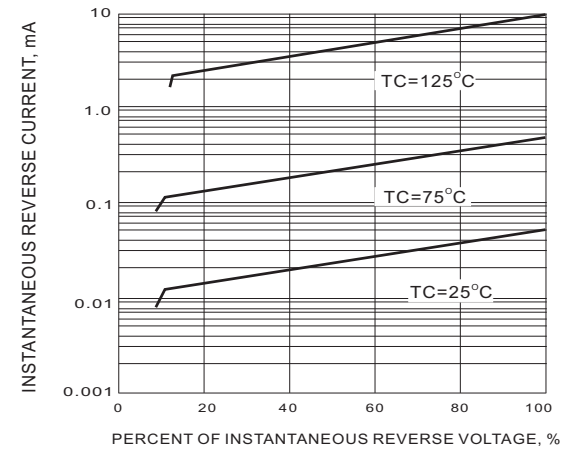

Fig.3 TYPICAL REVERSE CHARACTERISTIC

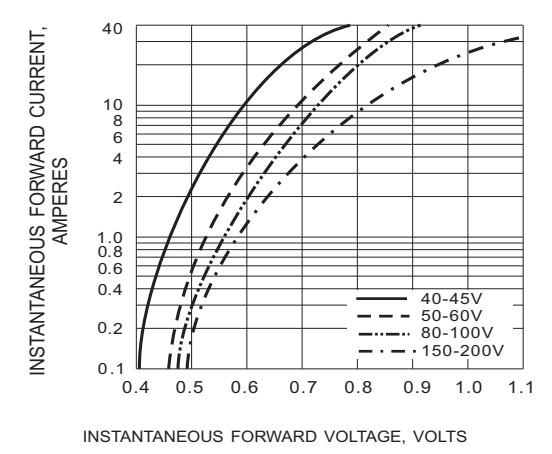

Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

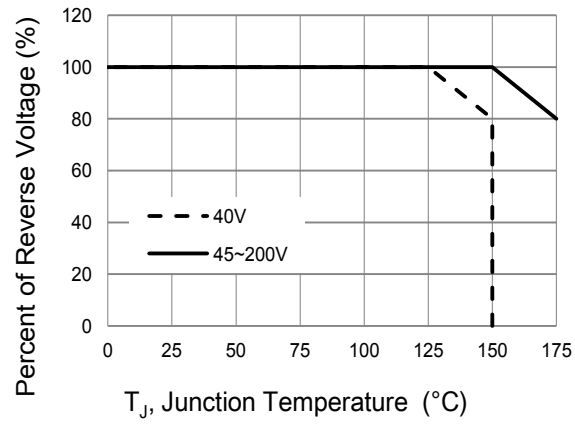

Fig.5 Operating Temperature Derating Curve

MBR3040CT SERIES

Part No_packing code_Version

MBR3040CT_T0_00001

For example :

RB500V-40_R2_00001

Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th 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			