

CURRENT 40 Ampere
 VOLTAGE RANG 40 to 200 Volts

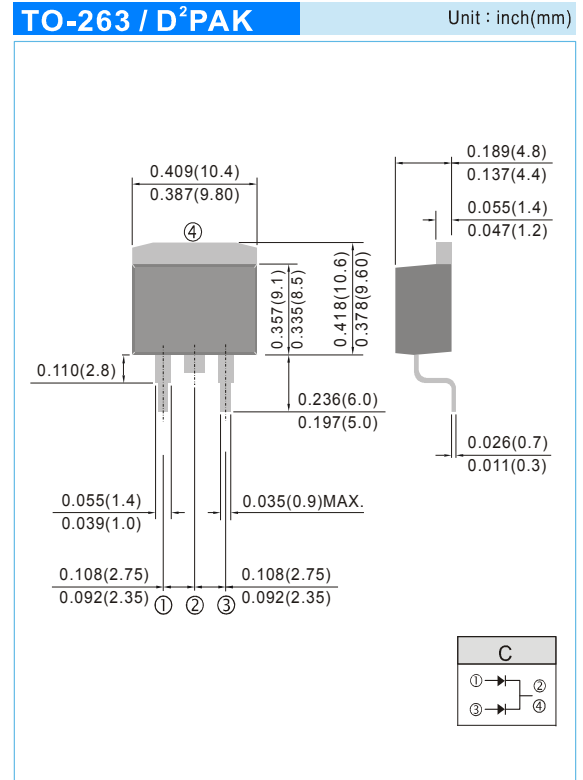
MBR4040DC THRU MBR40200DC

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 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: TO-263 / D²PAK molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Weight: 0.049 ounces, 1.38 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%

	Symbols	MBR 4030DC	MBR 4035DC	MBR 4040DC	MBR 4045DC	MBR 4050DC	MBR 4060DC	MBR 40100DC	MBR 40150DC	MBR 40200DC	Units
Maximum repetitive peak reverse voltage	V _{RRM}	30	35	40	45	50	60	100	150	200	Volts
Maximum RMS voltage	V _{RMS}	21	25	28	32	35	42	70	105	140	Volts
Maximum DC blocking voltage	V _{DC}	30	35	40	45	50	60	100	150	200	Volts
Maximum average forward rectified current(see Fig.1)	Per leg	20.0									Amps
	Total device	40.0									
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	300.0									Amps
Maximum instantaneous forward voltage at 40.0 A	V _F	0.60			0.75		0.85	0.95			Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	I _R	0.2									mA
		30			50						
Typical thermal resistance (Note 2)	R _{θJC}	2.0									°C/W
Operating junction temperature range	T _J	-65 to +150									°C
Storage temperature range	T _{STG}	-65 to +150									°C

Notes :

Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

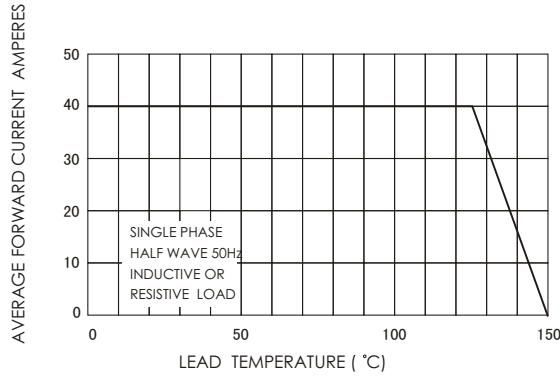


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

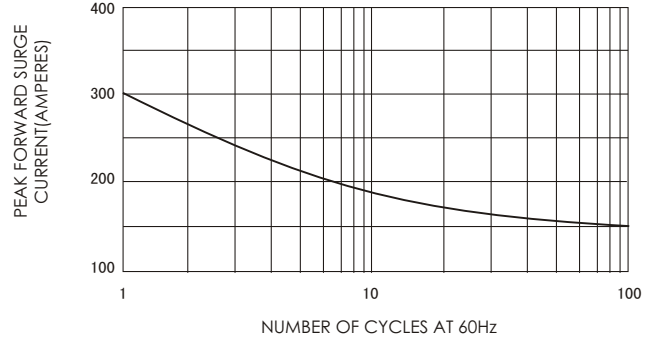


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

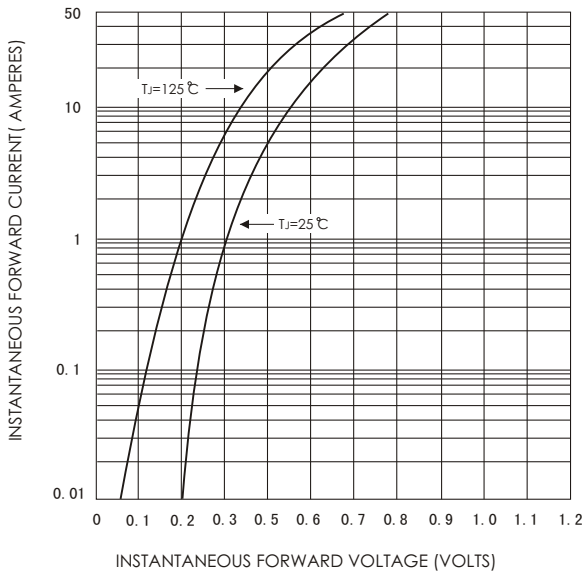


FIG.4-TYPICAL REVERSE CHARACTERISTICS

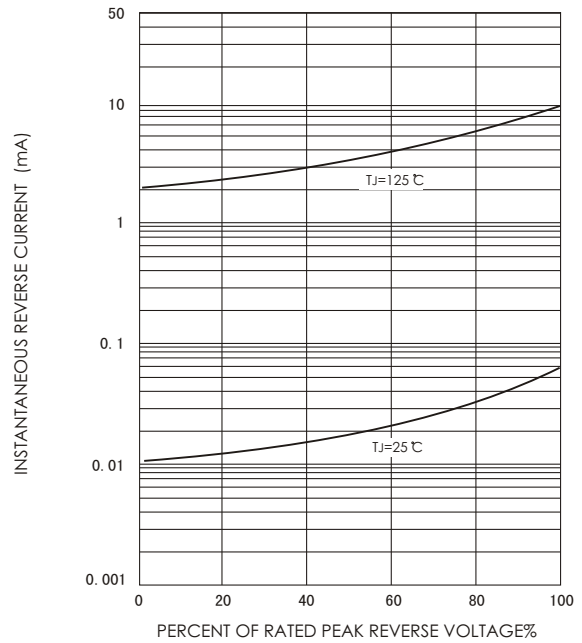


FIG.5-TYPICAL JUNCTION CAPACITANCE

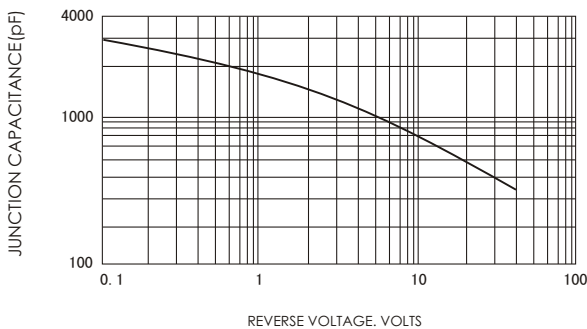
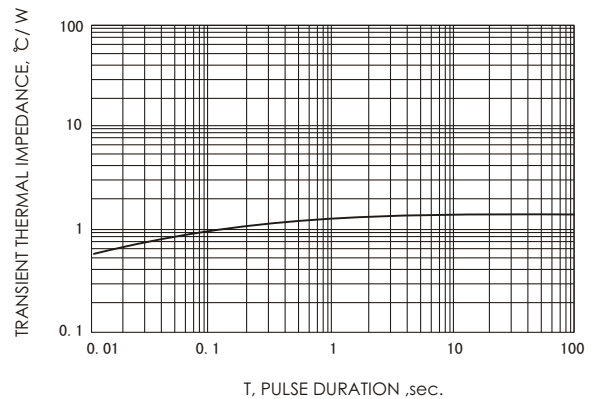


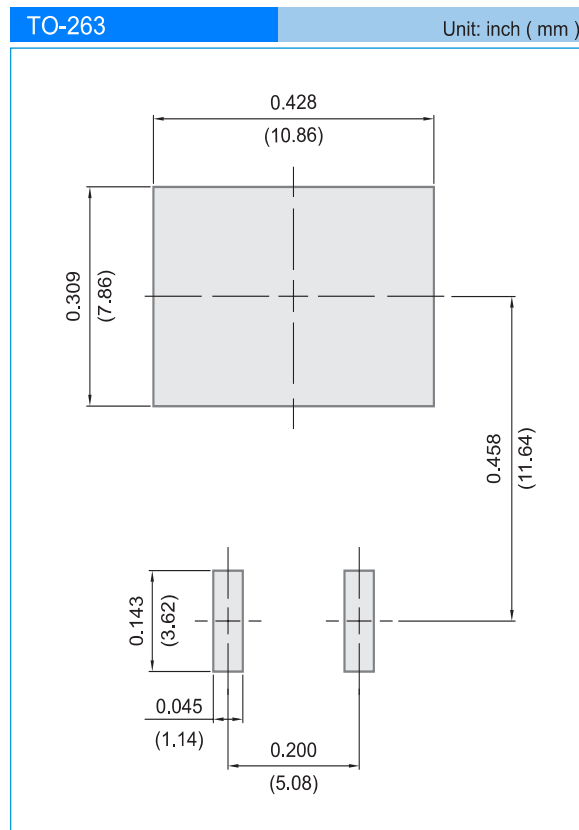
FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 0.8K per 13" plastic Reel