



# MBR840DC~MBR8200DC

## D<sup>2</sup>PAK SURFACE MOUNTSCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 40 to 200 Volts    **CURRENT** 8 Ampere

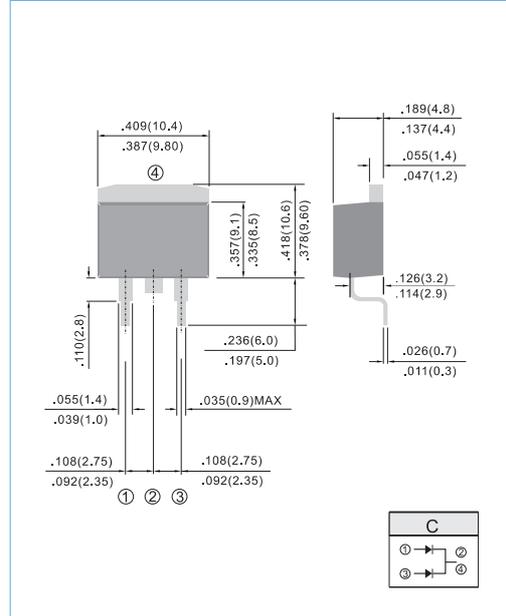
**TO-263 / D<sup>2</sup>PAK**    Unit: inch (mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- 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 polarity protection applications.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICALDATA

- Case: TO-263/D<sup>2</sup>PAK molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.0514 ounces, 1.46 grams.



PRELIMINARY

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	MBR840DC	MBR845DC	MBR850DC	MBR860DC	MBR880DC	MBR890DC	MBR8100DC	MBR8150DC	MBR8200DC	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 (See Figure 1)	$I_{F(AV)}$	8									A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	150									A
Maximum Forward Voltage at 4.0A	$V_F$	0.70		0.75		0.80		0.90			V
Maximum DC Reverse Current $T_J=25^{\circ}C$ at Rated DC Blocking Voltage $T_J=100^{\circ}C$	$I_R$					0.05		20			mA
Typical Thermal Resistance	$R_{\theta JC}$					3					$^{\circ}C / W$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150				-65 to +175					$^{\circ}C$

NOTES : Both Bonding and Chip structure are available.



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## RATING AND CHARACTERISTIC CURVES

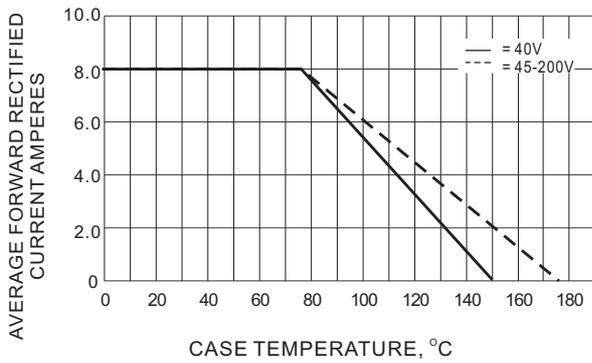


Fig.1- FORWARD CURRENT DERATING CURVE

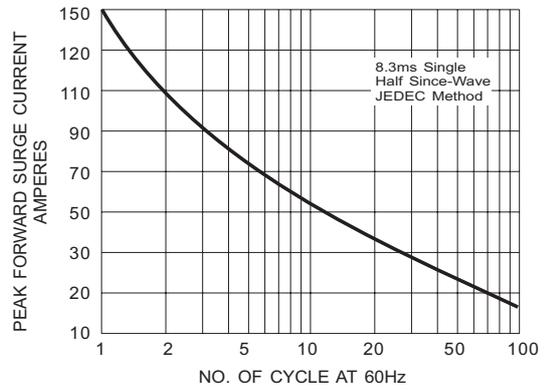


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

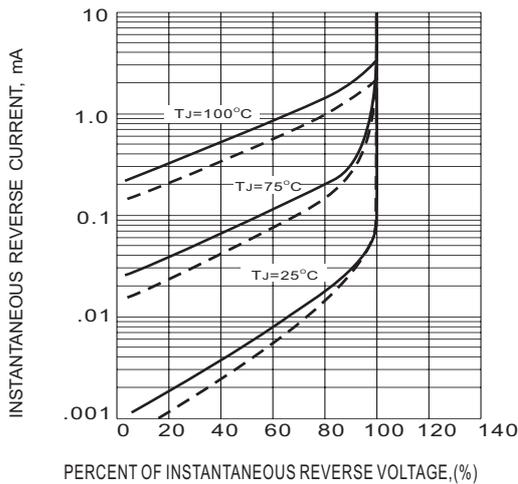


Fig.3- TYPICAL REVERSE CHARACTERISTICS

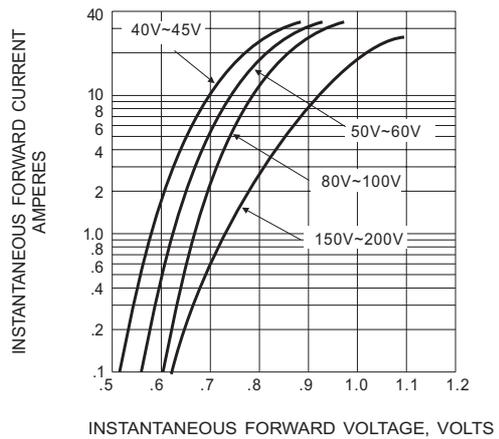


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

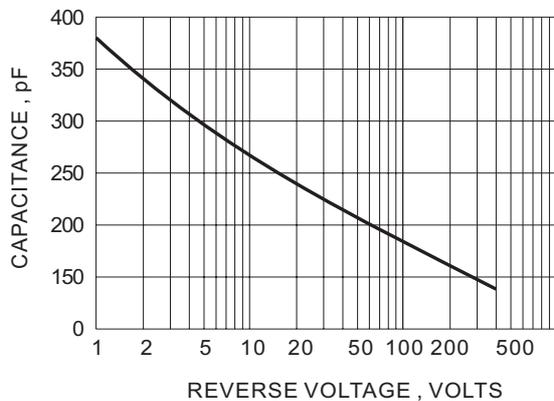


Fig.5-TYPICAL JUNCTION CAPACITANCE

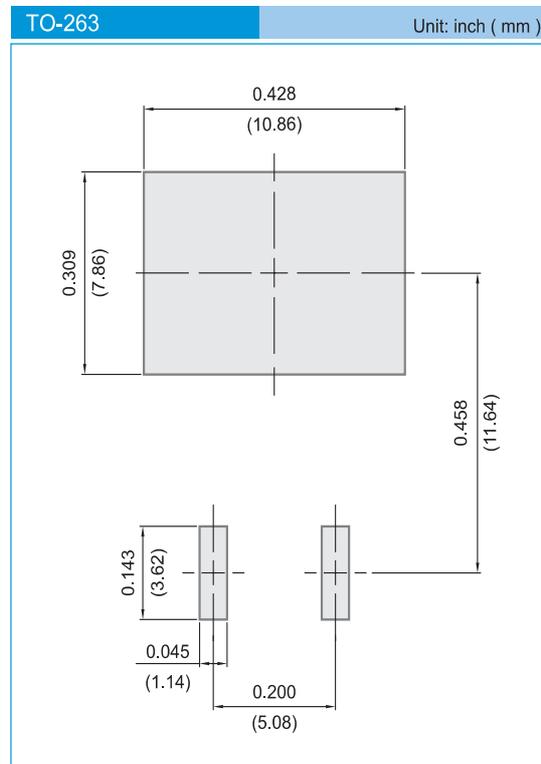
PRELIMINARY




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## MOUNTING PAD LAYOUT

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## ORDER INFORMATION

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

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## LEGAL STATEMENT

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