



# MBR1640DC~MBR16200DC

## D<sup>2</sup>PAK SURFACE SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 40 to 200 Volts **CURRENT** 16 Amperes

TO-263 / D<sup>2</sup>PAK

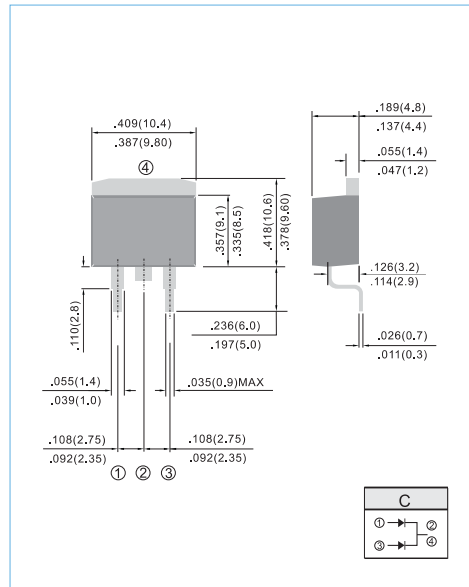
Unit: inch (mm)

### 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

### MECHANICAL DATA

- Case: D<sup>2</sup>PAK/TO-263 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



### MAXIMUM RATINGS

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	MBR1640DC	MBR1645DC	MBR1650DC	MBR1660DC	MBR1680DC	MBR1690DC	MBR16100DC	MBR16150DC	MBR16200DC	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)	$I_{F(AV)}$	16									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 8.0A per leg	$V_F$	0.70		0.75		0.80			0.90		V	
Maximum DC Reverse Current at $T_J=25^{\circ}C$ Rated DC Blocking Voltage $T_J=100^{\circ}C$	$I_R$						0.05				mA	
Typical Thermal Resistance	$R_{\theta JC}$						2.0				$^{\circ}C / W$	
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150								-65 to +175		$^{\circ}C$



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## RATING AND CHARACTERISTIC CURVES

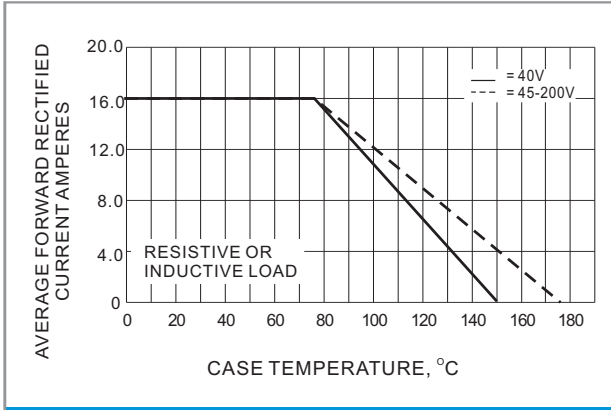


Fig.1- FORWARD CURRENT DERATING CURVE

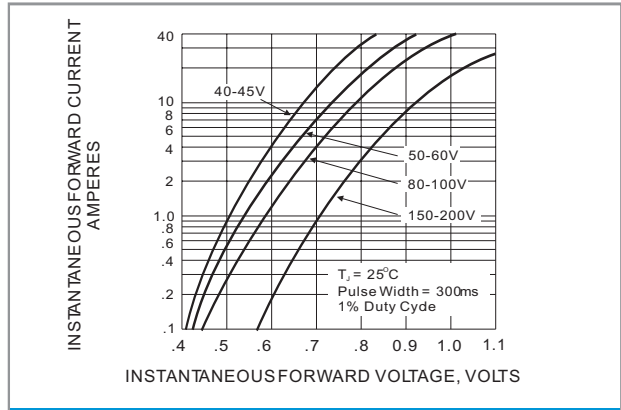


Fig.2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

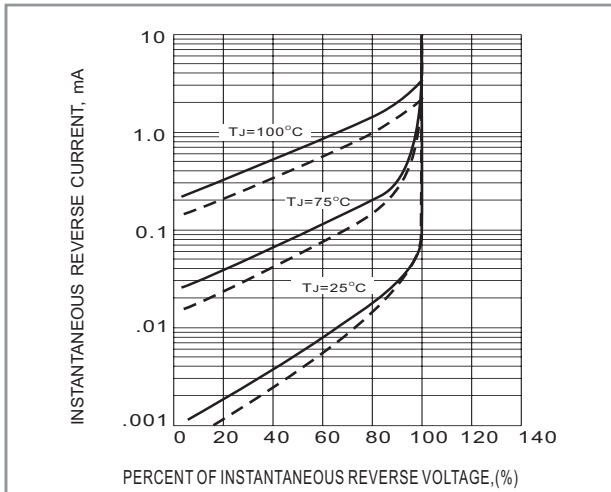


Fig.3- TYPICAL REVERSE CHARACTERISTICS

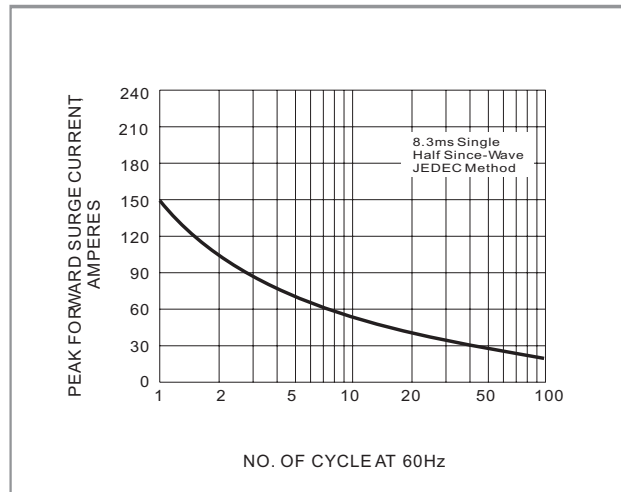


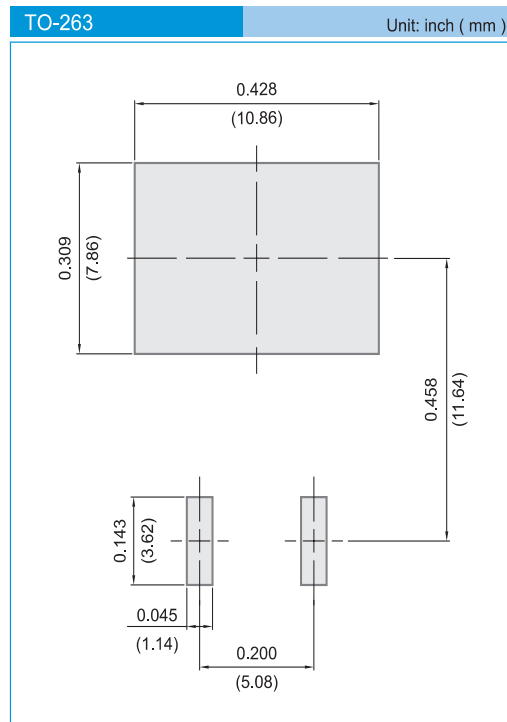
Fig.4- MAXIMUM NON-REPETITIVE SURGE CURRENT




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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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