

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

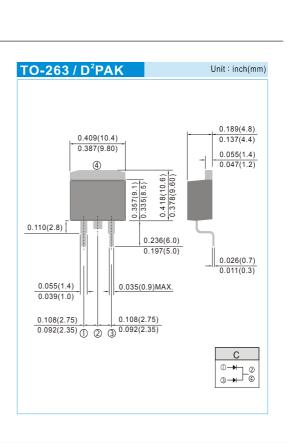
VOLTAGE 40 to 200 Volt CURRENT 16 Ampere

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- · Low power loss, high efficiency.
- · Low forward voltge, high current capability
- · High surge capacity.
- For use in low voltage, high frequency inverters free wheeling , and polarlity protection applications.
- · Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### **MECHANICALDATA**

- Case: D<sup>2</sup>PAK/TO-263 molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- · Polarity: As marked.
- · Weight: 0.049 ounces, 1.38 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 <sub>RRM</sub>	40	45	50	60	80	90	100	150	200	۷
Maximum RMS Voltage	V <sub>RMS</sub>	28	31.5	35	42	56	63	70	105	140	۷
Maximum DC Blocking Voltage	V <sub>DC</sub>	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward (See Figure 1)	I <sub>F(AV)</sub>	16					A				
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	150				A					
Maximum Forward Voltage at 8.0A per leg	V <sub>F</sub>	0.70		0.75			0.80		0.90		V
Maximum DC Reverse Current at Rated DC Blocking $T_j$ =25°C Voltag $T_j$ =100°C	I <sub>R</sub>	0.05 20					mA				
Typical Thermal Resistance	$R_{_{ ext{ ext{ ext{ ext{ ext{ ext{ ext{ ext$	2.0					°C / W				
Operating Junction and Storage Temperature Range	T <sub>j</sub> ,T <sub>stg</sub>	-55 to +150 -65 to +175				٥C					



### **RATING AND CHARACTERISTIC CURVES**

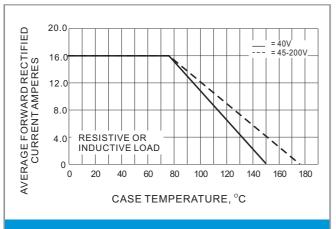
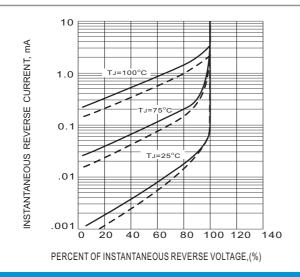
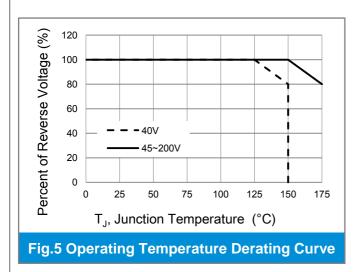
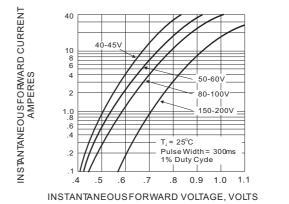


Fig.1 FORWARD CURRENT DERATING CURVE

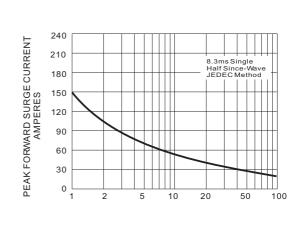


### Fig.3 TYPICAL REVERSE CHARACTERISTICS







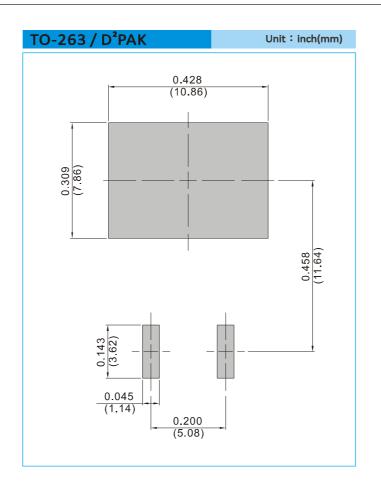


NO. OF CYCLEAT 60Hz

Fig.4 MAXIMUM NON - REPETITIVE SURGE CURRENT



### MOUNTING PAD LAYOUT



#### **ORDER INFORMATION**

Packing information

T/R - 0.8K per 13" plastic Reel

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## Part No\_packing code\_Version

MBR1640DC\_R2\_00001

### For example :

RB500V-40\_R2\_00001

Part No.

Serial number

Version code means HF

- Packing size code means 13"
- Packing type means T/R

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