



# MBR2040DC-AU

## 20 AMPERES SCHOTTKY BARRIER RECTIFIERS

**Voltage**

**40 V**

**Current**

**20 A**

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

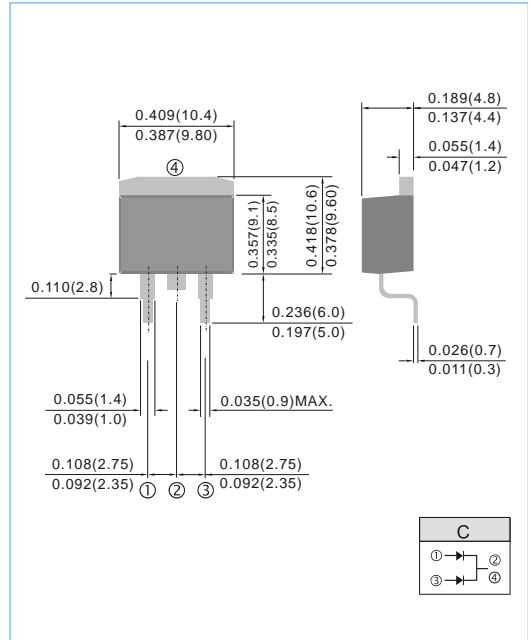
Unit : inch(mm)

### 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
- Acquire quality system certificate : TS16949
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2011/65/EU directive

### Mechanical Data

- Case: TO-263 / D<sup>2</sup>PAK molded plastic
- Terminals: solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Approx. Weight: 0.0515 ounces, 1.46 grams
- Marking: Part number



### Maximum Ratings ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		$V_{RRM}$	40	V
Maximum rms voltage		$V_{RMS}$	28	V
Storage temperature range		$V_R$	40	V
Maximum average forward rectified current	per device	$I_{F(AV)}$	20	A
	per diode		10	
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load per diode		$I_{FSM}$	200	A
Maximum forward voltage at 10A per diode		$V_F$	0.7	V
Maximum dc reverse current at rated dc blocking voltage	$T_C=25^{\circ}\text{C}$	$I_R$	0.05	mA
	$T_C=125^{\circ}\text{C}$		20	
Typical thermal resistance per diode		$R_{\theta JC}$	2	$^{\circ}\text{C/W}$
Operating junction temperature range		$T_J$	-55 to +150	$^{\circ}\text{C}$
Storage temperature range		$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

Notes : Both Bonding and Chip structure are available.



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## RATING AND CHARACTERISTIC CURVES

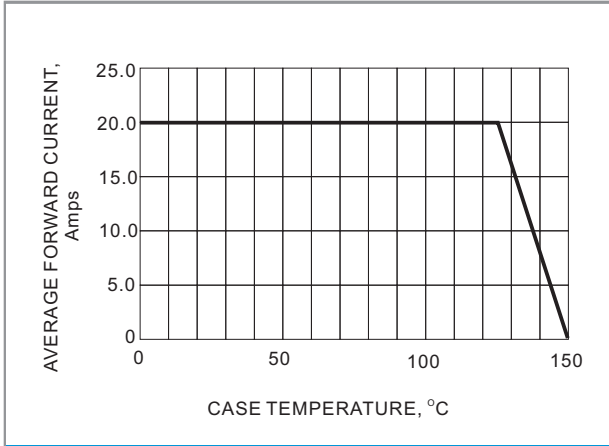


Fig. 1- FORWARD CURRENT DERATING CURVE

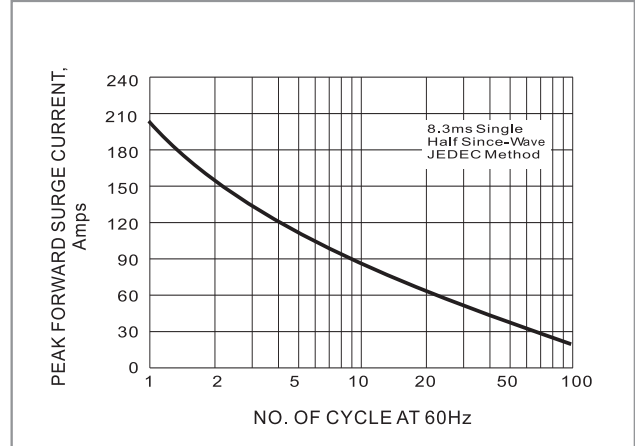


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

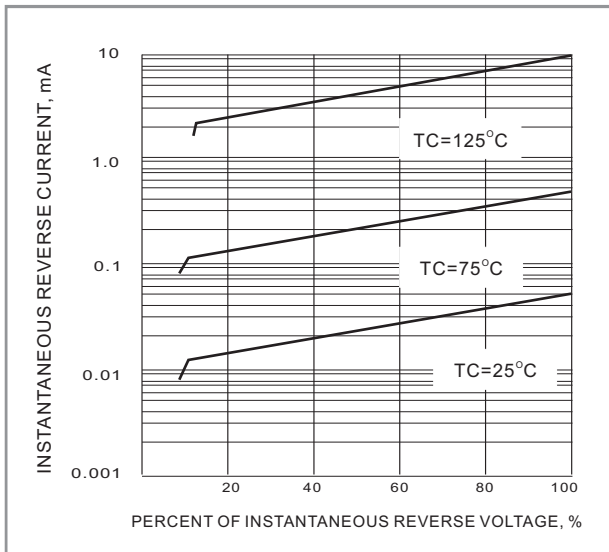


Fig.3- TYPICAL REVERSE CHARACTERISTICS

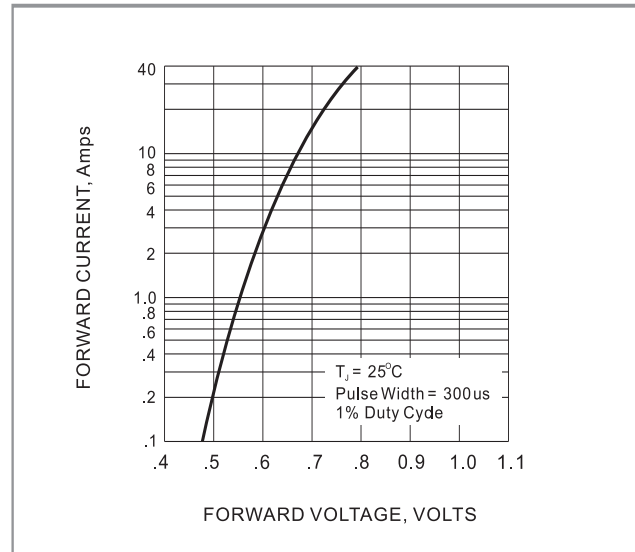
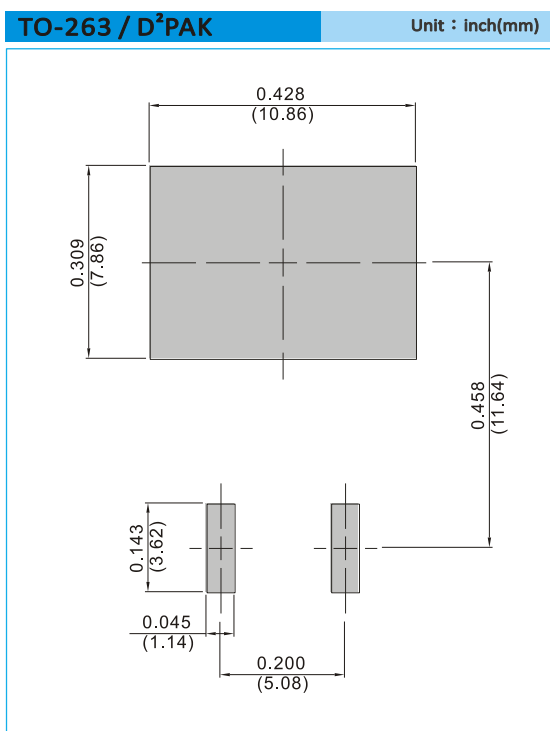


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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



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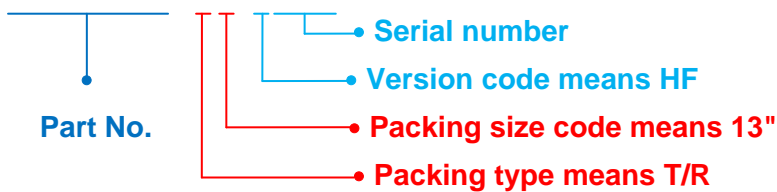
Part No\_packing code\_Version

MBR2040DC-AU\_T0\_000A1

MBR2040DC-AU\_T0\_100A1

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
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)	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			



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