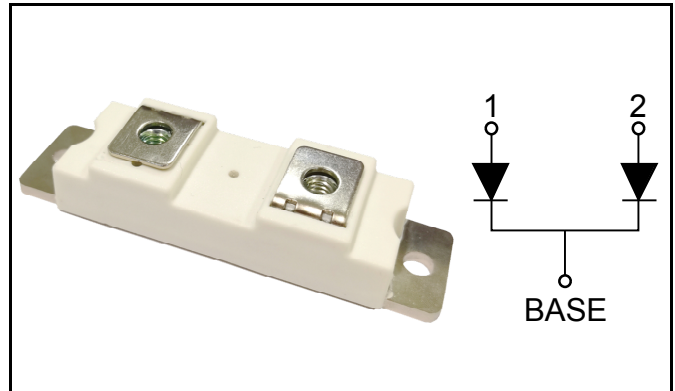


#### ■ Applications

- High Current Switching Power Supplies.
- High Frequency Power Supplies.
- Converter & Chopper.
- Plating Power Supplies.
- UPS System.
- Welder.
- Reverse Battery Protection.

#### ■ Features

- 175°C TJ Operation.
- Center Tap Module.
- High Frequency Operation.
- Low Forward Voltage.
- Lead (Pb)-free.
- Designed and qualified for industrial level.



PRODUCT SUMMARY		
TYPE	$I_{F(AV)}$	VR
MBR600H100B	600A	100V

### Absolute Maximum Ratings

Item		Symbol	Data	Unit
Maximal Inverted Repetitive Peak Voltage		$V_{RRM}$	100	V
Average Rectified Forward Current(Rated VR-20Khz Square Wave)-50% duty cycle	Per Package	$I_{FAV}$	600	A
	Per Leg		300	
Forward Peak Surge Current(Rated Load 8.3 Half Mssine Wave-According to JEDEC Method)	Per Leg	$I_{FSM}$	4500	A
Operating Junction Temperature		$T_J$	-40~175	°C
Storage Temperature		$T_{STG}$	-40~175	°C
Module to Sink	Recommended (M6)	M	3~4.7	Nm
Module Electrodes	Recommended (M6)		3~4.7	Nm
Junction to Case Thermal Resistance(Per Leg)		$R_{\theta JC}$	0.1	°C/W
Module(Approximately)		Weight	90	g

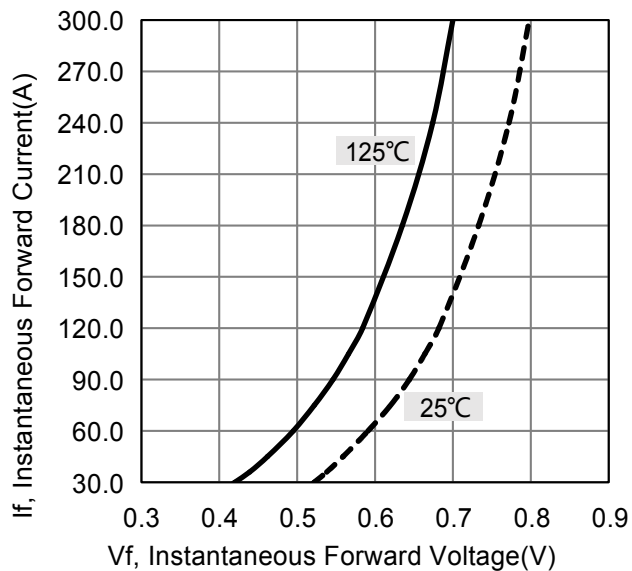
### Electricity Character Per Leg(TJ=25°C unless otherwise specified)

Item	Test Condition		Value(min)	Value(typ)	Value(max)	Unit
$V_B$	TJ =25°C	IR=1mA	100	—	—	V
$I_R$	TJ =25°C	VR=100V	—	—	0.08	mA
	TJ =125°C	VR=100V	—	—	75.00	mA
$V_F$	TJ =25°C	IF=300A	—	0.8	0.9	V
	TJ =125°C	IF=300A	—	—	0.85	V

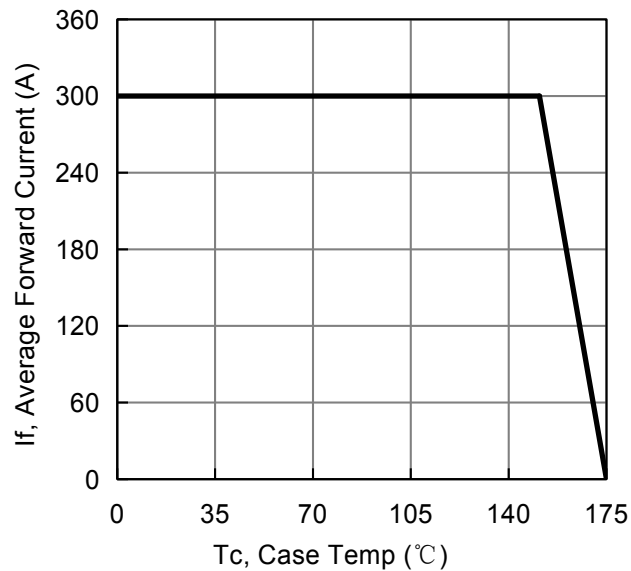


## Characteristic Curves

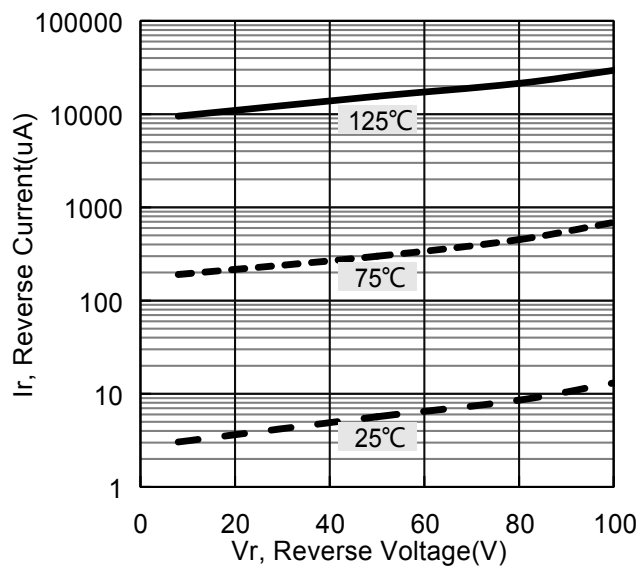
**Fig1. Forward Voltage Drop vs Forward Current**



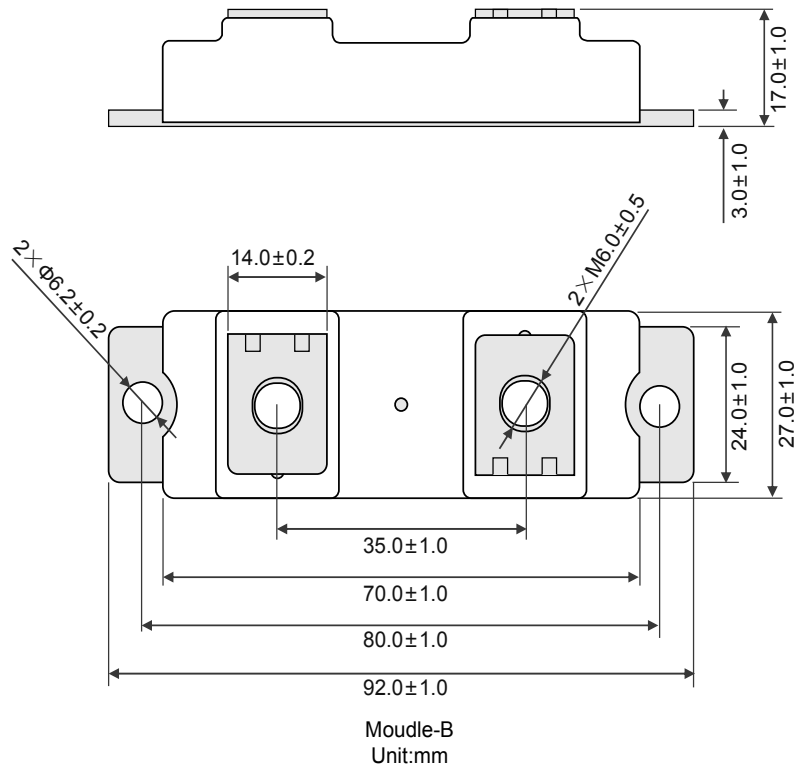
**Fig2. Forward Current Derating Curve**



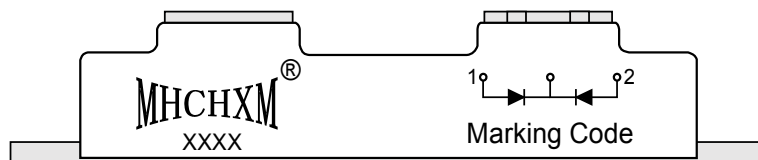
**Fig3. Typical Reverse Current**



## Package Outline Dimensions



## Marking Information



**MHCHXM**<sup>®</sup> = PRODUCT Logo

"XXXX" = Date Code

"Marking Code" = MBR600H100B



## DISCLAIMER

1. Above specification may be changed without notice. MHCHXM will reserve authority on material change for above specification.
2. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
3. When using this product, please observe the absolute maximum ratings and the instructions for use outlined in these specification sheets. MHCHXM assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
4. These specification sheets include materials protected under copyright of MHCHXM. Reproduction in any form is prohibited without the specific consent of MHCHXM.
5. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized MHCHXM sales agent for special application request.
6. Statements regarding the suitability of products for certain types of applications are based on MHCHXM's knowledge of typical requirements that are often placed on MHCHXM products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify MHCHXM's terms and conditions of purchase, including but not limited to the warranty expressed therein.
7. This publication supersedes & replaces all information previously supplied. For additional application information, please visit our website <http://www.jshxm.com> , or consult your nearest MHCHXM's sales office for further assistance.

