

## Rectifier module

**Reverse Voltage - 800V to 1800V**

**Forward Current - 60A**

### Features

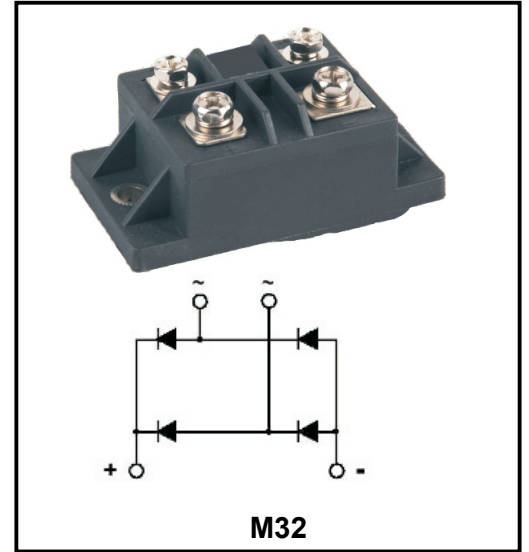
- ◆ Low reverse leakage current
- ◆ High surge current capability
- ◆ Compliant to RoHS directive 2011/65/EU

### Applications

- ◆ Industrial power supply
- ◆ DC supply for PWM inverter
- ◆ Supplies for DC power equipment

### Mechanical Data

- ◆ Case : M32
- ◆ Polarity: Polarity symbols being marked on body
- ◆ Mounting torque: 22.0 kgf.cm max
- ◆ Weight: About 145 grams



### Maximum Ratings @ Ta = 25°C unless otherwise noted

Parameter	Symbols	MDQ60-08	MDQ60-10	MDQ60-12	MDQ60-16	MDQ60-18	Units
Maximum recurrent peak reverse voltage	<b>V<sub>RRM</sub></b>	800	1000	1200	1600	1800	<b>V</b>
Average rectified output current with heatsink, T <sub>c</sub> =100°C	<b>I<sub>(AV)</sub></b>	60					<b>A</b>
Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load	<b>I<sub>FSM</sub></b>	720					<b>A</b>
Rating for fusing, 1ms<t<8.3ms, T <sub>j</sub> =25°C, Rating of per diode	<b>I<sup>2</sup>t</b>	7200					<b>A<sup>2</sup>S</b>
Junction temperature	<b>T<sub>j</sub></b>	-40 ~ +150					<b>°C</b>
Storage temperature	<b>T<sub>STG</sub></b>	-40 ~ +125					<b>°C</b>
Dielectric, strength terminals to case AC 1 minute	<b>V<sub>dis</sub></b>	2.5					<b>KV</b>
Peak Forward Voltage I <sub>F</sub> = 60A	<b>V<sub>F</sub></b>	1.2					<b>V</b>
Peak Reverse Current VR=VRRM, Pulse measurement Rating of per diode	T <sub>j</sub> =25°C	0.5					<b>mA</b>
	T <sub>j</sub> =125°C						
Maximum thermal resistance per leg	<b>R<sub>θJC</sub></b>	1.0					<b>°C/W</b>

**Characteristic Curve**

FIG1. Derating Curve For Output Rectified Current

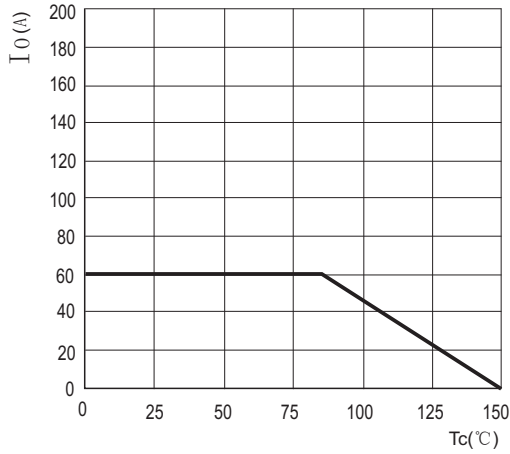


FIG2. Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

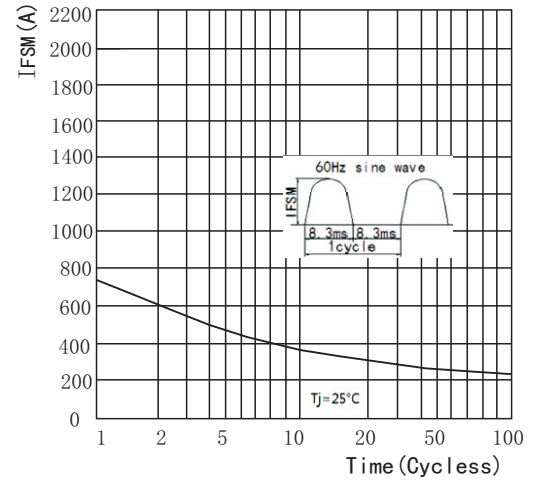


FIG3. Typical Reverse Characteristics Per Bridge Element

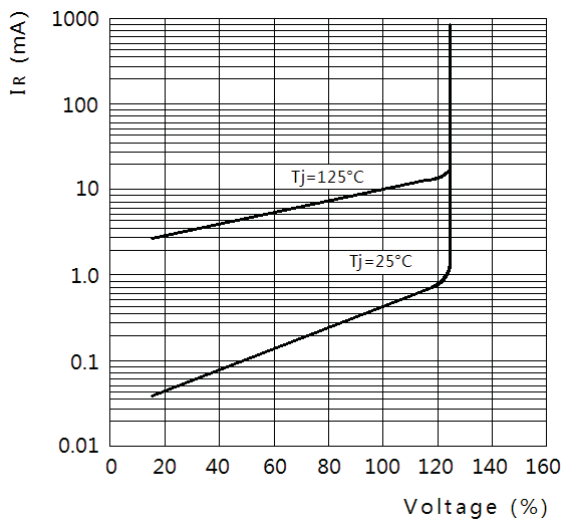
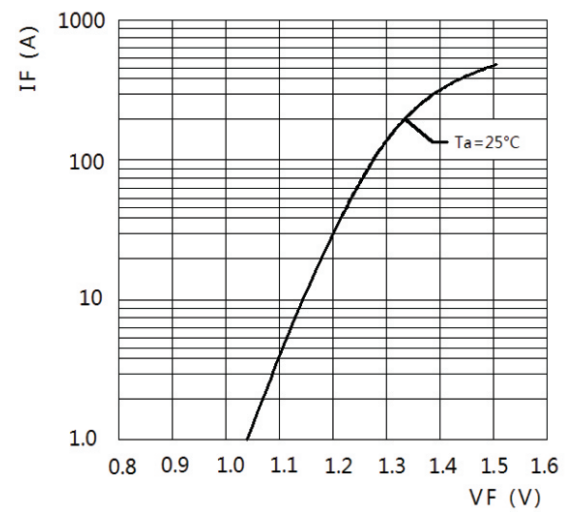
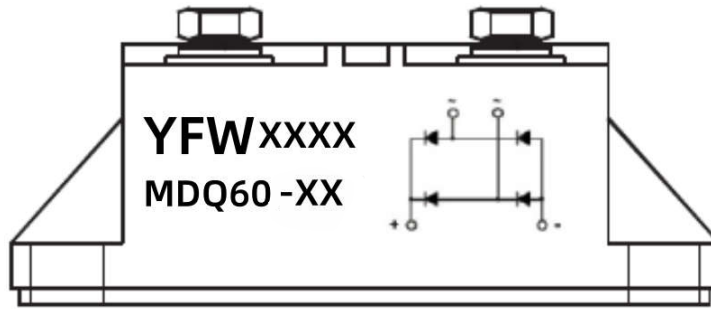


FIG4. Typical Forward Characteristics Per Bridge Element



Marking Diagram



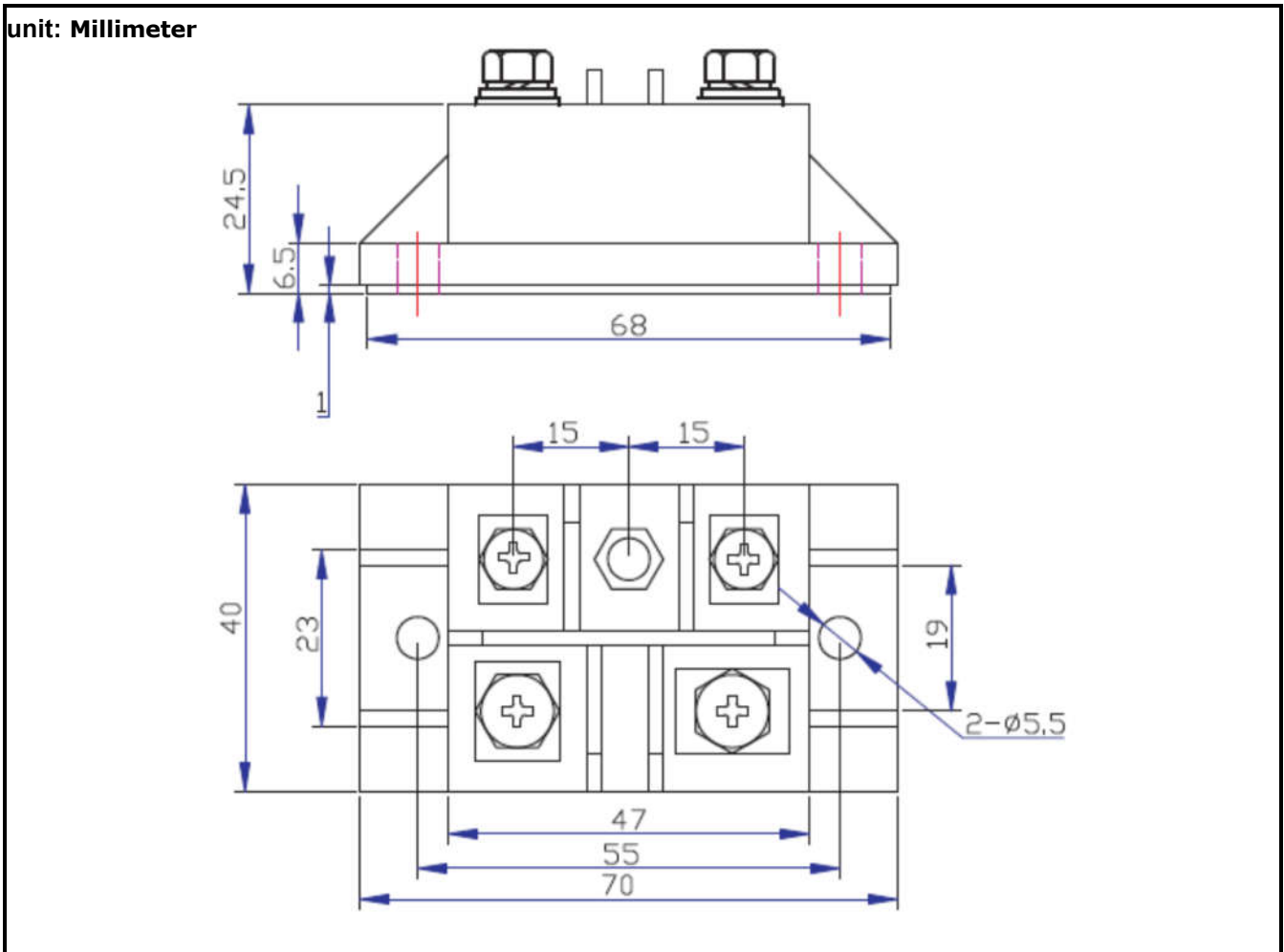
Ordering information

Model name	Package	Unit Weight	Base Quantity
MDQ60-XX	M32	-	10pcs/ Box

Package Dimensions

M32

unit: Millimeter



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