

**Rectifier module**

**V<sub>RRM</sub> = 800V to 1600V**

**I<sub>(AV)</sub> = 50A**

**FEATURES**

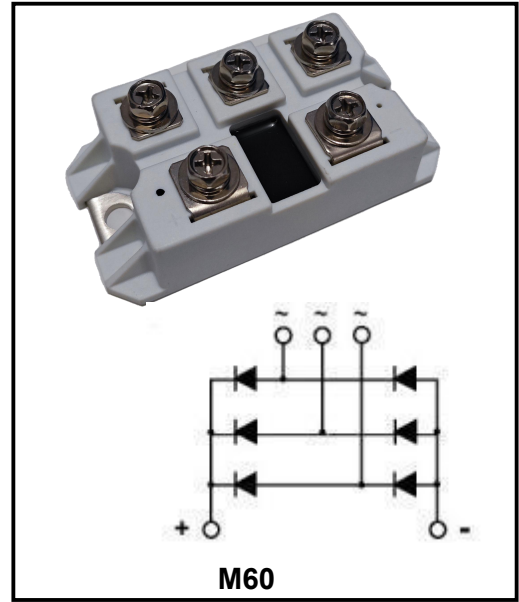
- ◆ Low reverse leakage current
- ◆ High surge current capability
- ◆ Compliant to RoHS directive 2011/65/EU

**APPLICATIONS**

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

**MECHANICAL DATA**

- ◆ Case : M60
- ◆ Polarity: Polarity symbols being marked on body
- ◆ Mounting torque: 15kgf.cm max
- ◆ Weight: About 156 grams



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

Parameter	Symbols	MDS50C-08	MDS50C-10	MDS50C-12	MDS50C-14	MDS50C-16	Units
Maximum recurrent peak reverse voltage	<b>V<sub>RRM</sub></b>	800	1000	1200	1400	1600	<b>V</b>
Average rectified output current with heatsink, T <sub>c</sub> =100°C	<b>I<sub>(AV)</sub></b>	50					<b>A</b>
Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load	<b>I<sub>FSM</sub></b>	530					<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>	5880					<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> = 50A	<b>V<sub>F</sub></b>	1.2					<b>V</b>
Peak Reverse Current V <sub>R</sub> =V <sub>RRM</sub> , Pulse measurement Rating of per diode	<b>I<sub>R</sub></b>	0.5 10					<b>mA</b>
Junction to case thermal resistance, with heatsink	<b>R<sub>θJC</sub></b>	0.8					<b>°C/W</b>

**Characteristic Curve**

FIG 1 .Derating Curve For Output Rectified Current

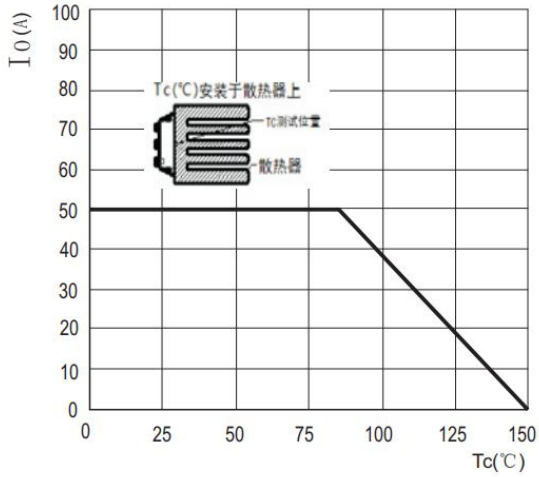


FIG2 .Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

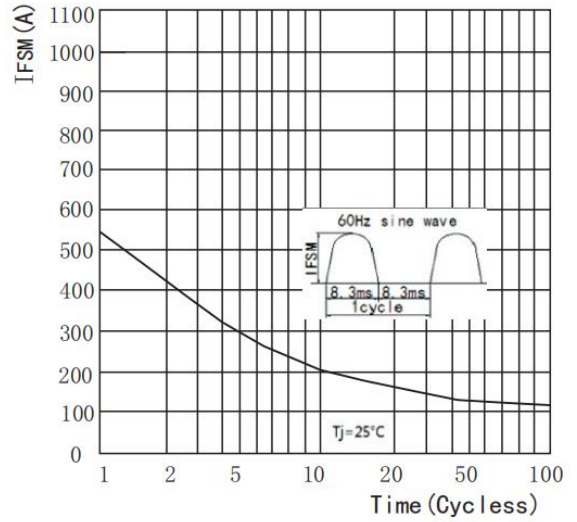


FIG3.Typical Reverse Characteristics Per Bridge Element

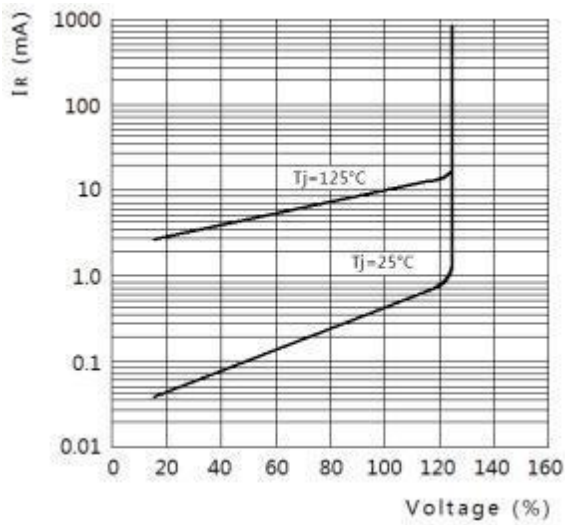
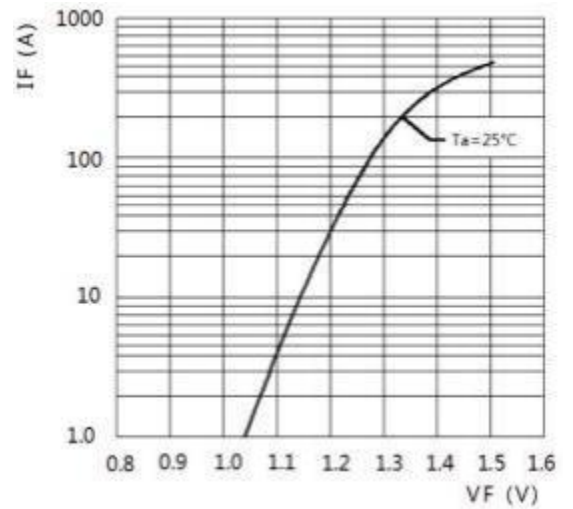
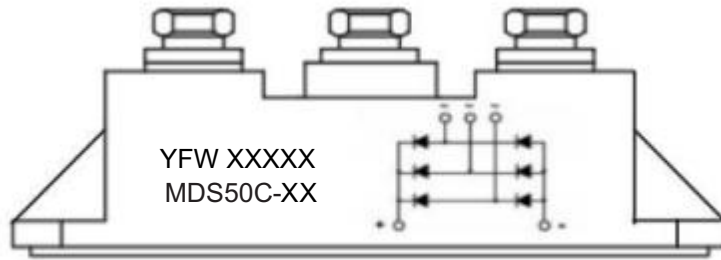


FIG4.Typic al Forward Characteristics Per Bridge Element



Marking Diagram



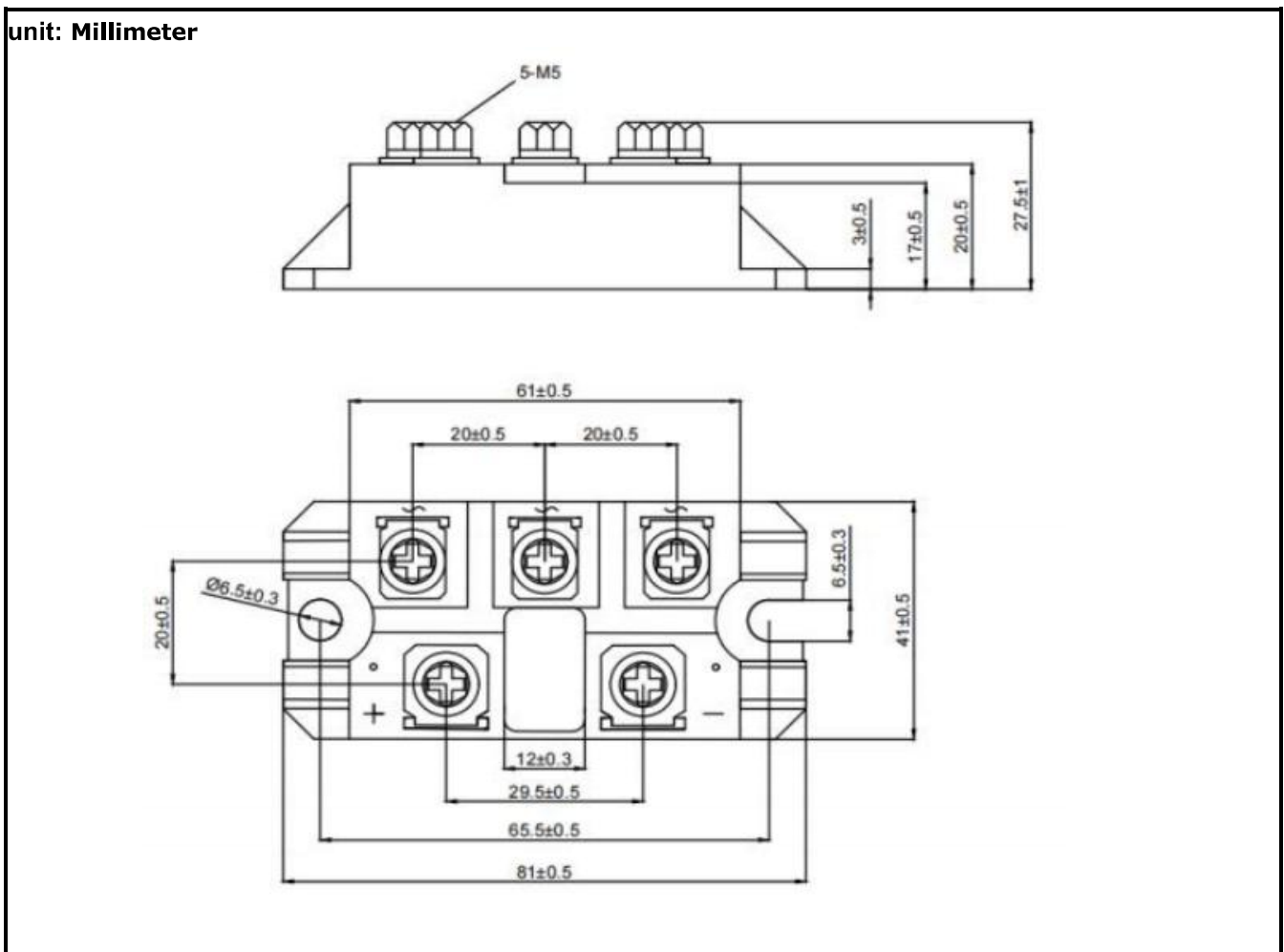
Ordering information

Model name	Package	Unit Weight	Base Quantity
MDS50C -XX	M60	-	10pcs/ Box

Package Dimensions

M60

unit: Millimeter



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