

Rectifier module

Reverse Voltage - 800V to 1600V

Forward Current - 100A

Features

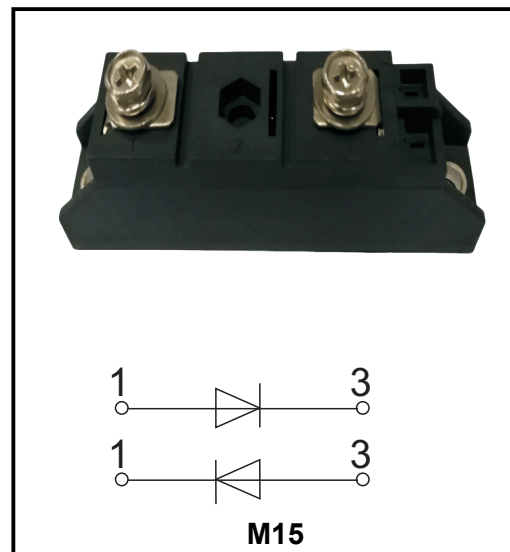
- ◆ Low reverse leakage current
- ◆ High surge current capability
- ◆ Compliant to RoHS directive 2011/65/EU

Applications

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

Mechanical Data

- ◆ Case :M15
- ◆ Polarity: Polarity symbols being marked on body
- ◆ Mounting torque:25.0kgf.cm max
- ◆ Weight : About 90 grams



Maximum Ratings @ Ta = 25°C unless otherwise noted

Parameter	Symbols	MD100-08	MD100-10	MD100-12	MD100-14	MDC100-16	Units
Maximum recurrent peak reverse voltage	V_{RRM}	800	1000	1200	1400	1600	V
Average rectified output current with heatsink, $T_c=100^\circ\text{C}$	$I_{(AV)}$	100					A
Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	3200					A
Rating for fusing, $1\text{ms} < t < 8.3\text{ms}$, $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	32370					A ² S
Junction temperature	T_j	$-40 \sim +150$					$^\circ\text{C}$
Storage temperature	T_{STG}	$-40 \sim +125$					$^\circ\text{C}$
Dielectric, strength terminals to case AC 1 minute	V_{dis}	2.5					KV
Peak Forward Voltage $I_F = 100\text{A}$	V_F	1.3					V
Peak Reverse Current $V_R = V_{RRM}$, Pulse measurement Rating of per diode	I_R	0.5 10					mA
Junction to case thermal resistance, with heatsink	$R_{\theta JC}$	0.18					$^\circ\text{C/W}$

Characteristic Curve

FIG1. Derating Curve For Output Rectified Current

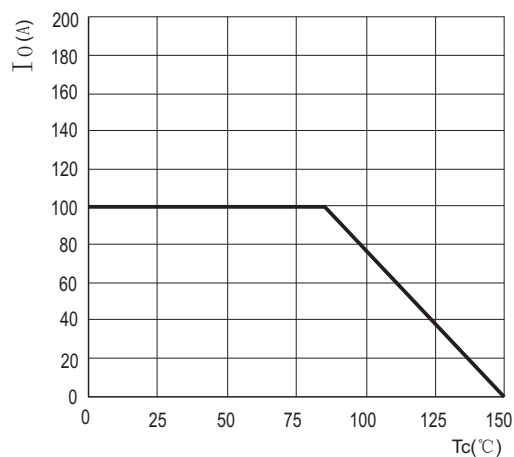


FIG3. Typical Reverse Characteristics Per Bridge Element

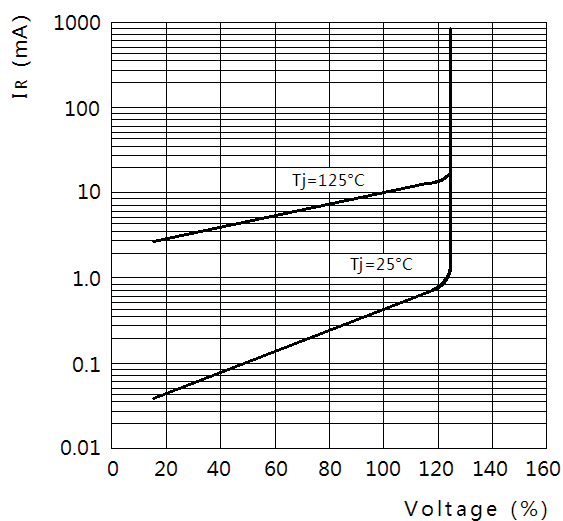


FIG2. Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

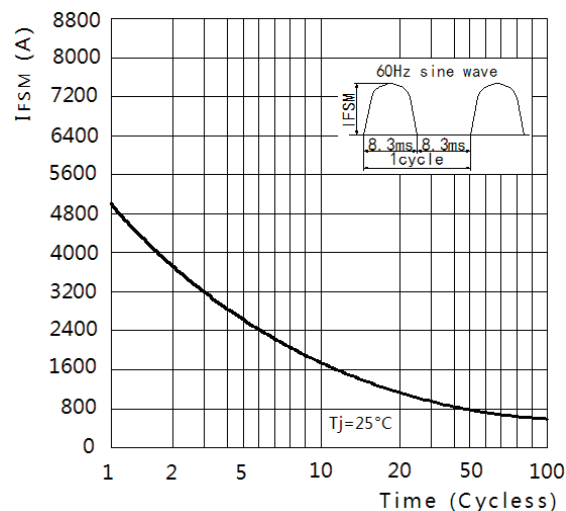
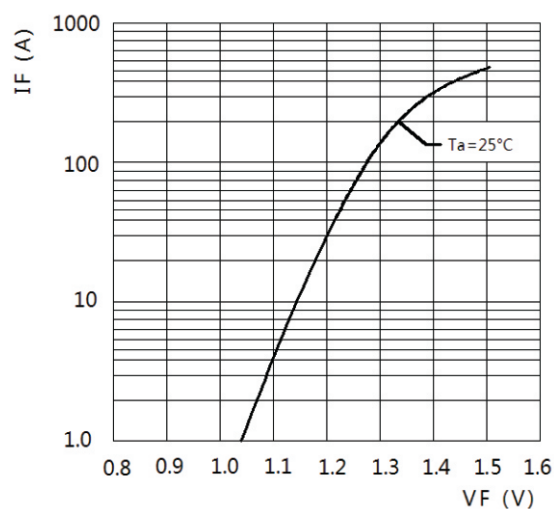
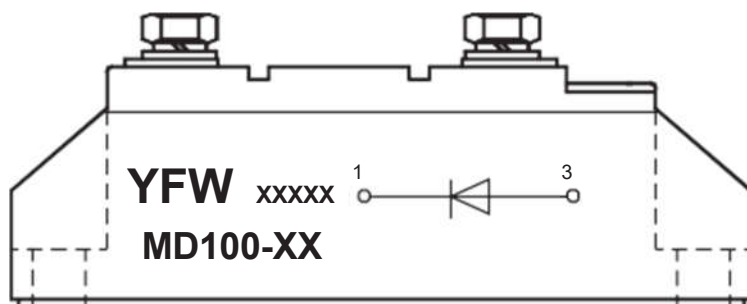


FIG4. Typical Forward Characteristics Per Bridge Element



Marking Diagram



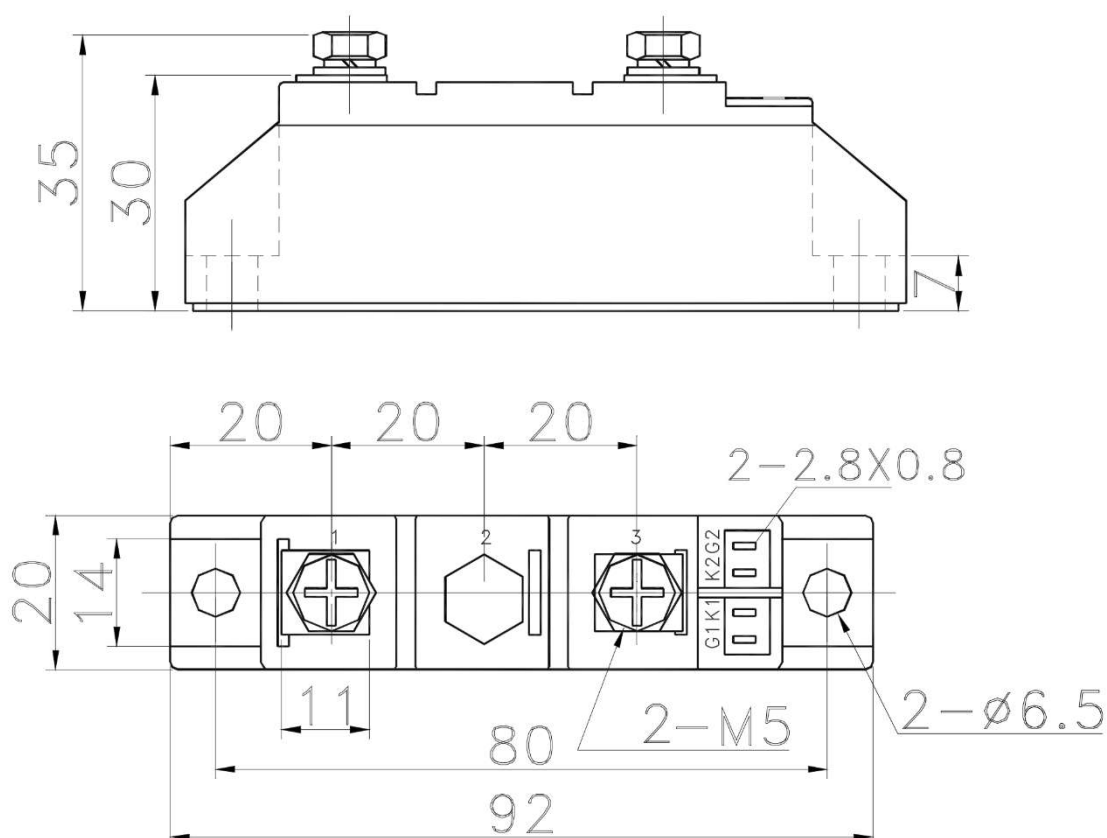
Ordering information

Model name	Package	Unit Weight	Base Quantity
MD100-XX	M15	-	10pcs/ Box

Package Dimensions

M15

unit: Millimeter



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