

Rectifier Module

V_{RRM} - 1200 to 2000V

$I_{(AV)}$ - 90A

FEATURES

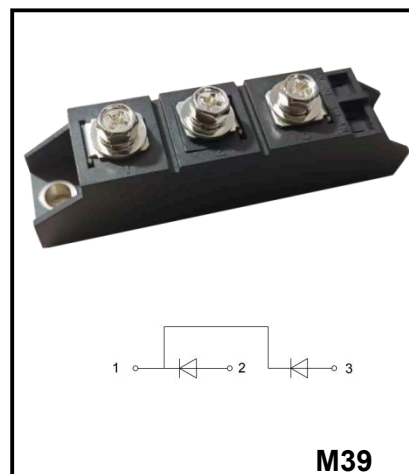
- ♦ Low reverse leakage current
- ♦ High surge current capability
- ♦ Compliant to RoHS directive 2011/65/EU

APPLICATIONS

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

MECHANICAL DATA

- ♦ Case: M39
- ♦ Polarity: Polarity symbols being marked on body
- ♦ Mounting torque: 15.0 kgf.cm max



Maximum Ratings @ $T_a = 25^{\circ}\text{C}$ unless otherwise noted

PARAMETER			SYMBOL	MDK90-12	MDK90-14	MDK90-16	MDK90-18	MDK90-20	UNIT
Maximum recurrent peak reverse voltage			V_{RRM}	1200	1400	1600	1800	2000	V
Average rectified output current	with heatsink, $T_C=100^{\circ}\text{C}$		$I_{(AV)}$	90					A
Peak surge forward current, 8.3ms single half Sine-wave superimposed on rated load			I_{FSM}	1000					A
Rating for fusing, $1\text{ms}<t<8.3\text{ms}$ $T_j=25^{\circ}\text{C}$, Rating of per diode			I^2t	11200					A ² s
Dielectric strength, terminals to case AC 1 minute			V_{dis}	2.5					KV
Peak Forward Voltage $I_F=90\text{A}$			V_F	1.2					V
Peak Reverse Current $V_R=V_{RRM}$, Pulse measurement Rating of per diode	$T_j=25^{\circ}\text{C}$ $T_j=125^{\circ}\text{C}$		I_R	0.5 10					mA
Junction to case thermal resistance, with heatsink			$R_{\theta JC}$	0.18					$^{\circ}\text{C/W}$
Junction temperature			T_J	$-40\sim+150$					$^{\circ}\text{C}$
Storage temperature			T_{STG}	$-40\sim+125$					$^{\circ}\text{C}$

Characteristic Curve

FIG 1 .Derating Curve For Output Rectified Current

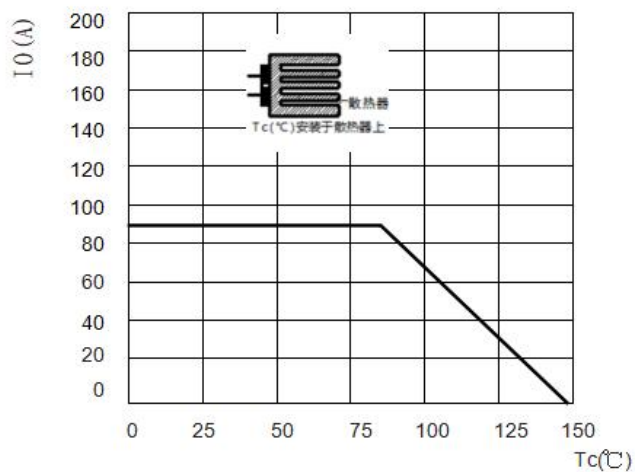


FIG3.Typical Reverse Characteristics Per Bridge Element

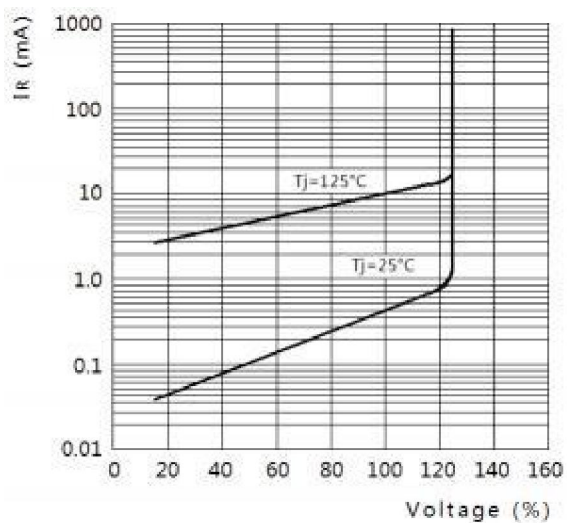


FIG2 .Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

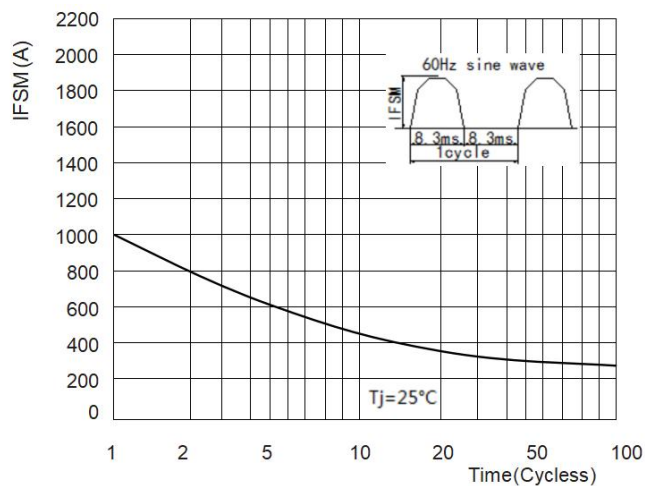
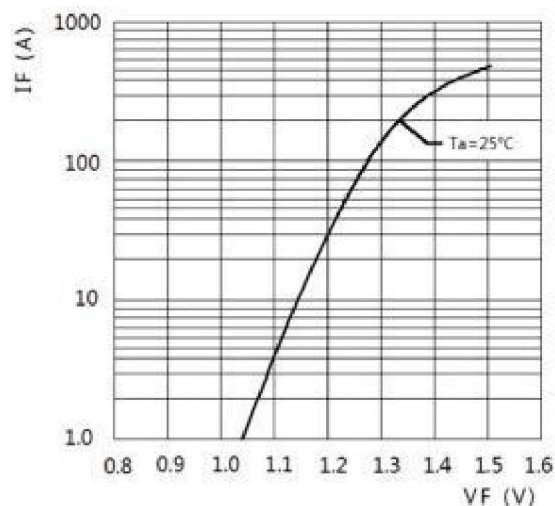
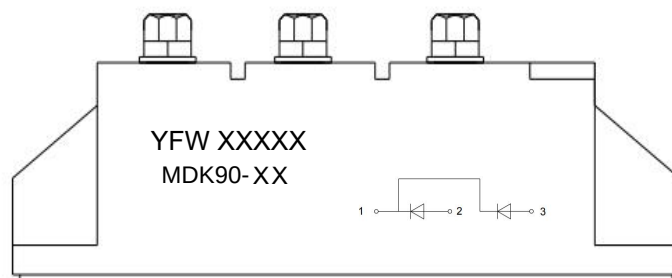


FIG4. Typical Forward Characteristics Per Bridge Element



Marking Diagram



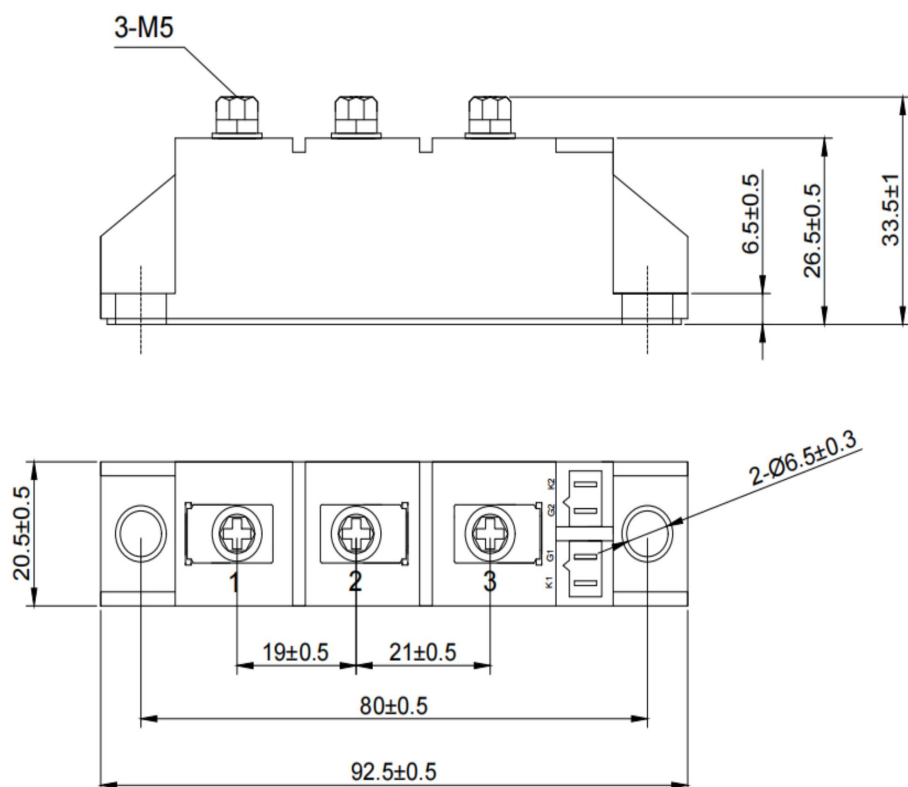
Ordering information

Model name	Package	Unit Weight	Base Quantity
MDK90-XX	M39	-	10pcs/ Box

Package Dimensions

M39

unit: Millimeter



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