



# MD160S-M5

## Glass Passivated Three Phase Rectifier Bridge

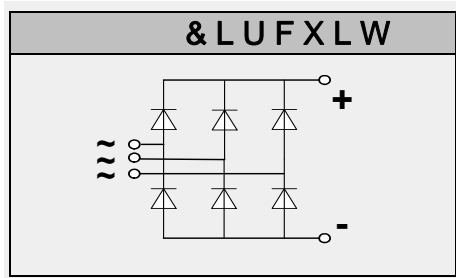
V<sub>RRM</sub> 800 to 1800V  
I<sub>D</sub> 160 A

### Applications

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers
- Input rectifiers for variable frequency drives

### Features

- Three phase bridge rectifier
- Blocking voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip
- UL recognized applied for file no. E360040



		RSM
MD160S08M5	800V	900V
MD160S12M5	1200V	1300V
MD160S16M5	1600V	1700V
MD160S18M5	1800V	1900V

### Maximum Ratings

Symbol	Conditions	Values	Units
I <sub>D</sub>	Three phase, full wave $\tau_c=100$	160	A
I <sub>FSM</sub>	$t=10\text{ms}$ $T_{vj}=45$	1800	A
$i^2t$	$t=10\text{ms}$ $T_{vj}=45$	16200	A <sup>2</sup> s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
T <sub>vj</sub>		-40 to +150	
T <sub>stg</sub>		-40 to +125	
M <sub>t</sub>	To terminals(M6)	5-15%	Nm
M <sub>s</sub>	To heatsink(M6)	5-15%	Nm
Weight	Module(Approximately)	194	g

### Thermal Characteristics

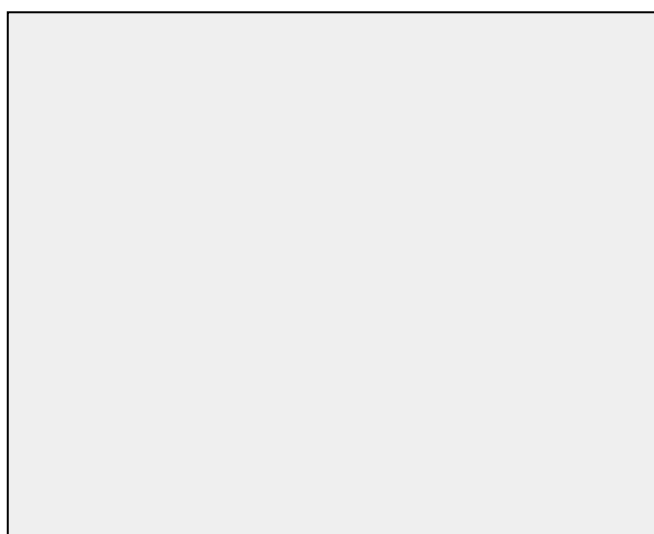
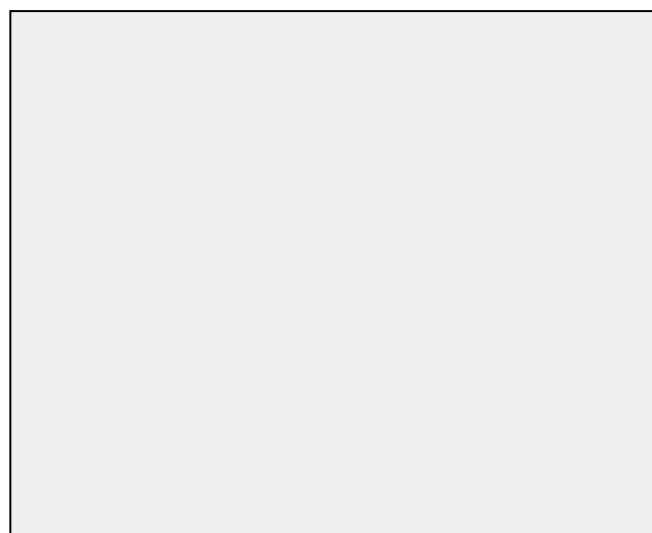
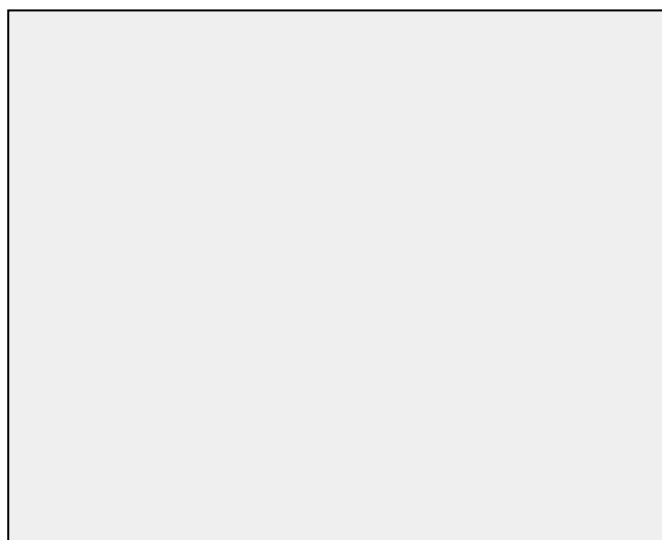
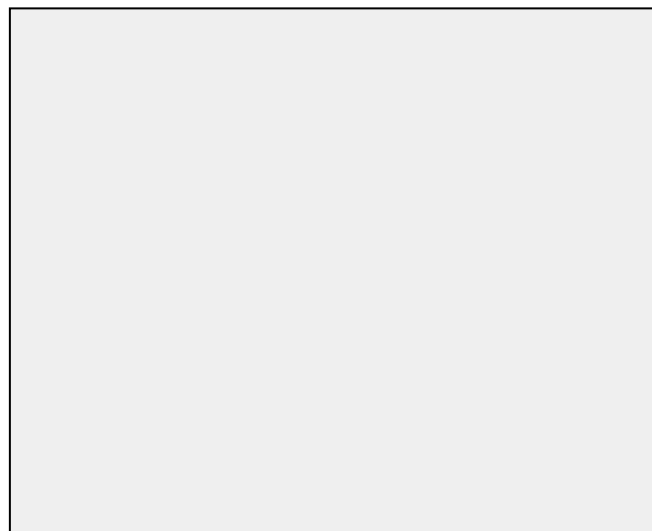
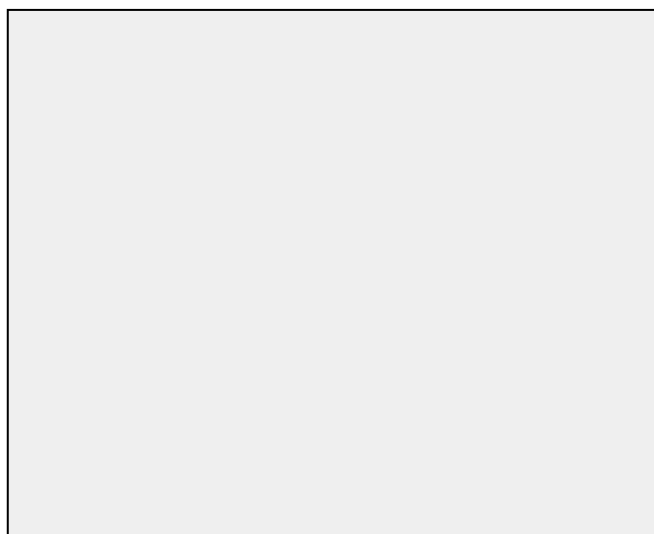
Symbol	Conditions	Values	Units
R <sub>th(j-c)</sub>	Per diode	0.65	/W
R <sub>th(c-s)</sub>	Module	0.03	/W

### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V <sub>FM</sub>	T=25 I <sub>F</sub> =300A	É	1.50	1.75	V
I <sub>RD</sub>	T <sub>vj</sub> =25 V <sub>RD</sub> =V <sub>RRM</sub> T <sub>vj</sub> =150 V <sub>RD</sub> =V <sub>RRM</sub>	É	É	0.5 6	mA mA



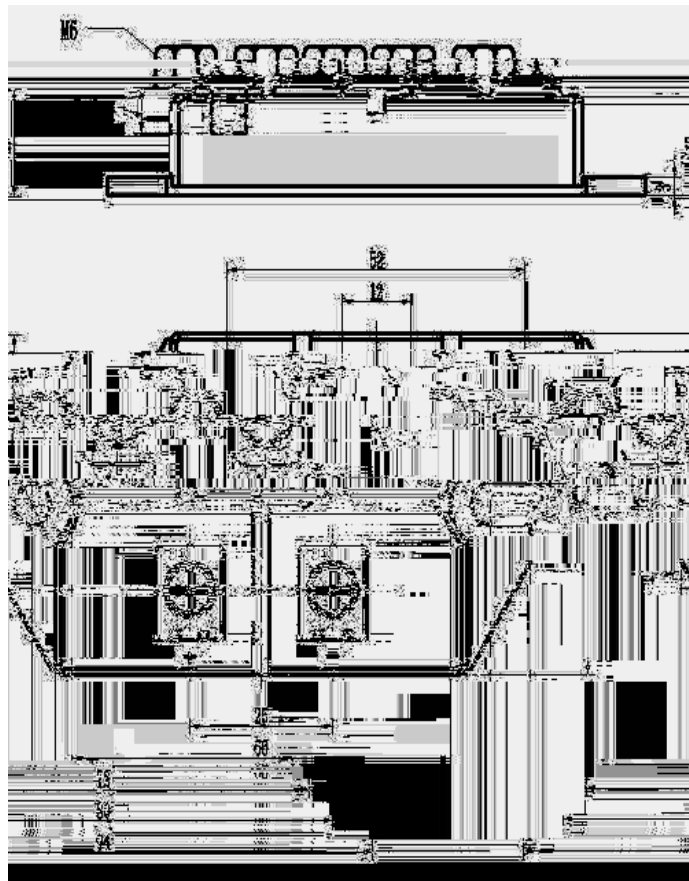
**Performance Curves**





## Package Outline Information

### CASE 0M5



Dimensions in mm