



## Glass Passivated Rectifier Diode Modules

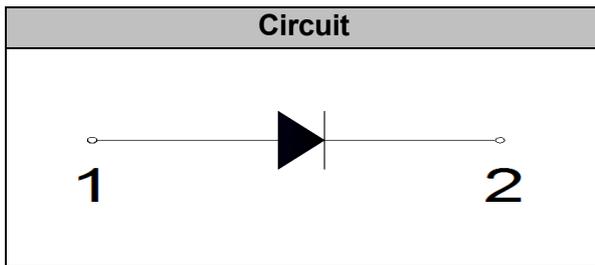
**VRRM** 800 to 1800V  
**IFAV** 250 A

### Applications

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

### Features

- Blocking voltage:800 to 1800V
- Heat transfer through aluminum oxide ceramic isolated metal baseplate
- Glass passivated chip



### Module Type

TYPE	VRRM	VRSM
MD250U08F6	800V	900V
MD250U12F6	1200V	1300V
MD250U16F6	1600V	1700V
MD250U18F6	1800V	1900V

### Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180°conduction Tc=95°C	250	A
IFSM	t=10mS Tvj =45°C	6500	A
i <sup>2</sup> t	t=10mS Tvj =45°C	211250	A <sup>2</sup> s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to 150	°C
Tstg		-40 to 125	°C
Mt	To terminals(M6)	5±15%	Nm
Ms	To heat sink(M6)	5±15%	Nm
Weight	Module (Approximately)	130	g

### Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per Module	0.2	°C/W
Rth(c-s)	Module	0.05	°C/W

### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°CIF =250A	—	1.0	1.2	V
IRD	Tvj=150°CVRD=VRRM	—	—	10	mA
r <sub>F</sub>	T <sub>J</sub> =25°C		0.83		mΩ
VFO			0.82		V



Performance Curves

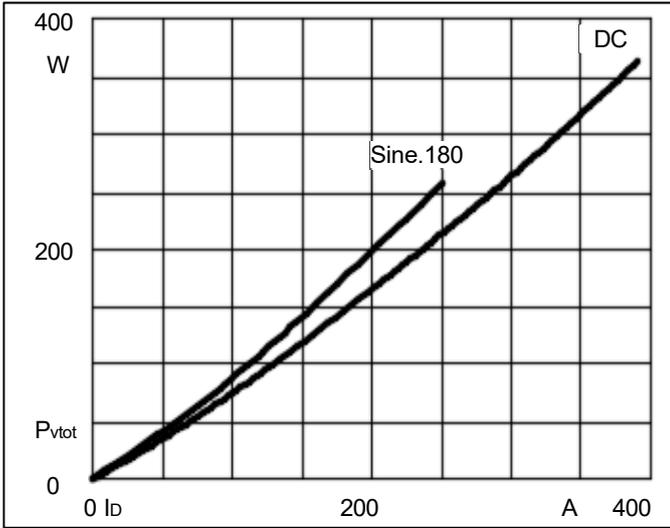


Fig1. Power dissipation

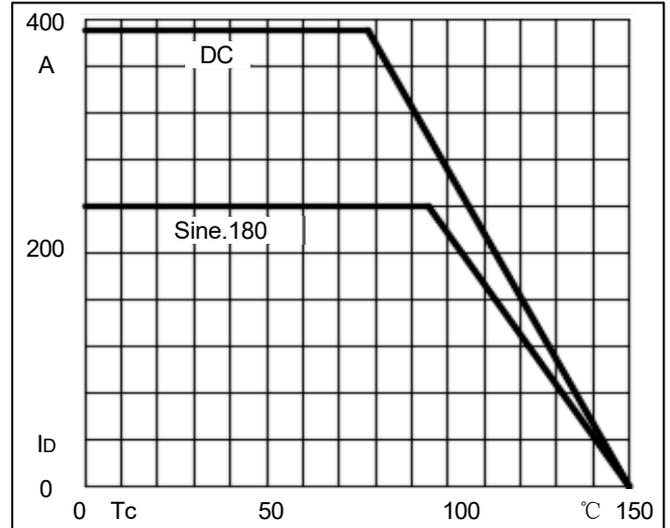


Fig2. Forward Current Derating Curve

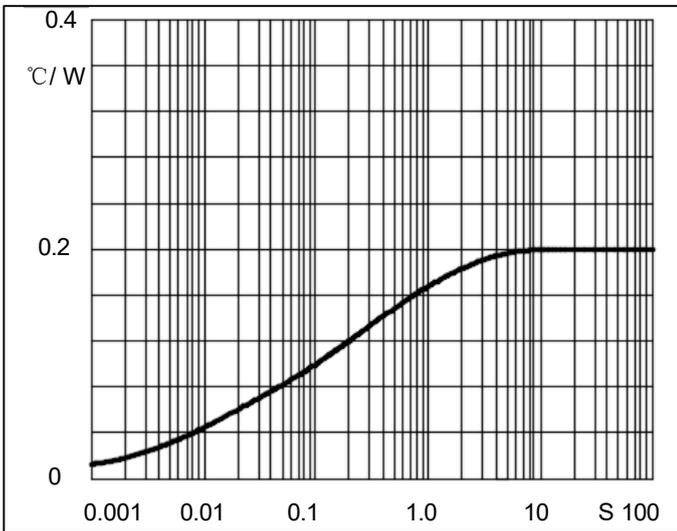


Fig3. Transient thermal impedance

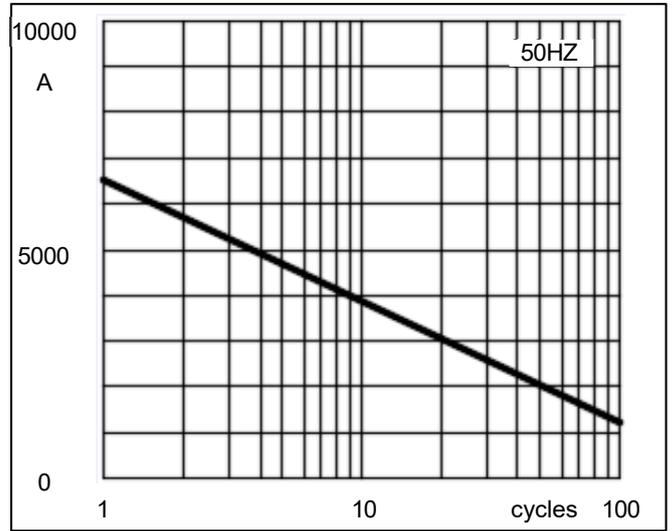


Fig4. Max Non-Repetitive Forward Surge Current

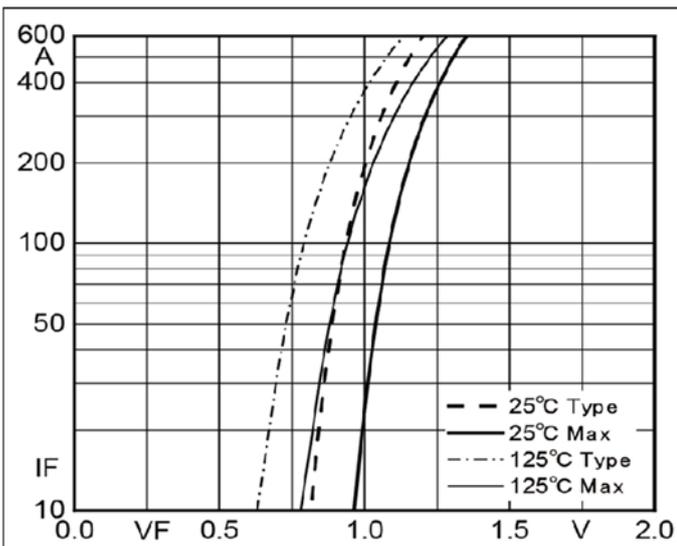
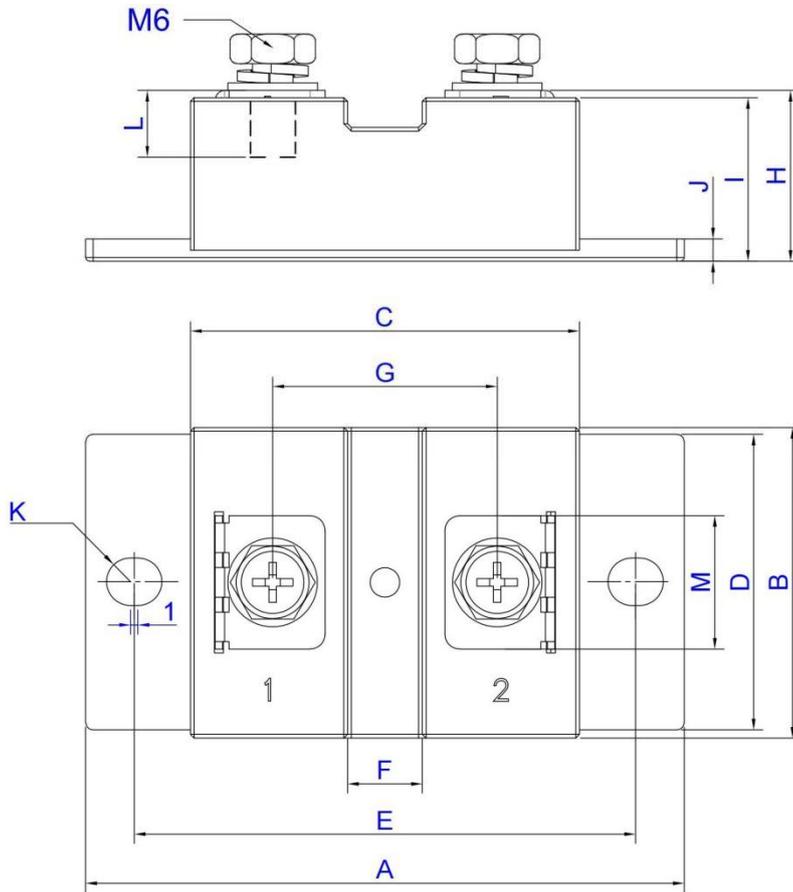


Fig5. Forward Characteristics

**Package Outline Information**

**CASE: F6**



DIM	Min (mm)	Max (mm)	Note
A	79.5	80.5	
B	41.5	42.5	
C	51.5	52.5	
D	39.5	40.5	
E	66.5	67.5	
F	9.5	10.5	
G	29.5	30.5	
H	22.5	23.5	
I	21.5	22.5	
J	2.5	3.5	
K	2.7	3.7	∅
L	9	9.5	
M	17.9	18.1	

**Packing Standard**

Item	Length: A (mm)	Width: B (mm)	Height: C (mm)	Quantity (PCS)
Inner Box	276	258	48	8
Outer Carton	545	295	240	80



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