



## Glass Passivated Rectifier Diode Modules

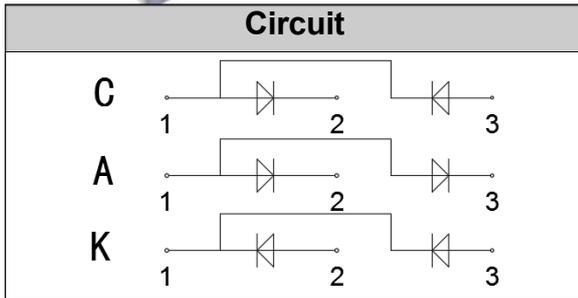
**VRRM** 2200V  
**IFAV** 200 A

### Applications

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

### Features

- Blocking voltage:2200V
- Heat transfer through aluminum oxide ceramic isolated metal baseplate
- Glass passivated chip
- UL recognized applied for file no. E230084



### Module Type

TYPE			VRRM	VRSM
MD200C22D2	MD200A22D2	MD200K22D2	2200V	2300V

### Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180°conduction Tc=95°C	200	A
IFSM	t=10mS Tvj =45°C	6800	A
	t=10mS Tvj =150°C	6000	A
i <sup>2</sup> t	t=10mS Tvj =45°C	231200	A <sup>2</sup> s
	t=10mS Tvj =150°C	180000	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)	160	g

### Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.15	°C/W
Rth(c-s)	Per Module	0.05	°C/W



## Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V <sub>FM</sub>	T=25°C I <sub>F</sub> =300A	1	1.15	1.30	V
	T=150°C I <sub>F</sub> =300A	1	1.05	1.20	V
I <sub>RD</sub>	T <sub>vj</sub> =150°C V <sub>RD</sub> =V <sub>RRM</sub>	—	—	9	mA
r <sub>f</sub>	T <sub>j</sub> =25°C		1.13		mΩ
	T <sub>j</sub> =150°C		1.4		mΩ
V <sub>fO</sub>	T <sub>j</sub> =25°C		0.84		V
	T <sub>j</sub> =150°C		0.74		V

## Performance Curves

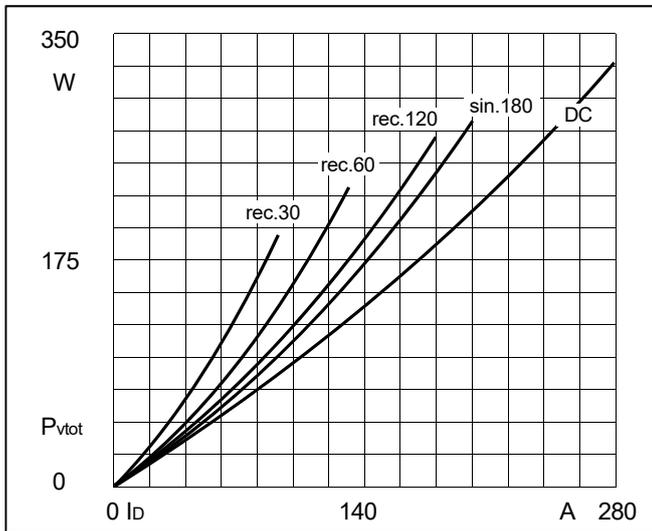


Fig1. Power dissipation

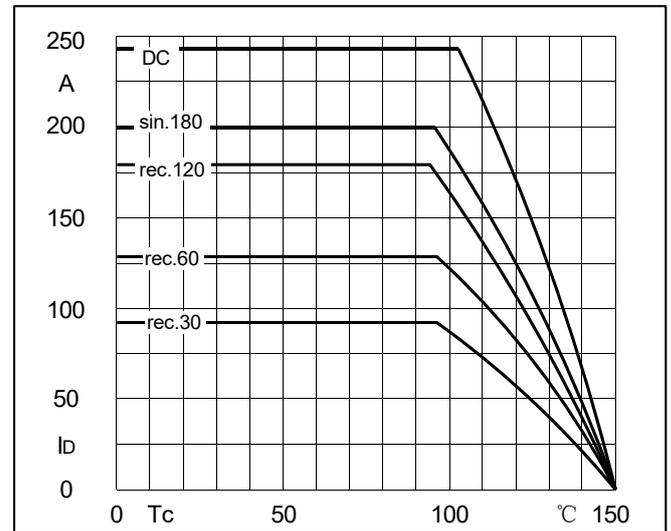


Fig2. Forward Current Derating Curve

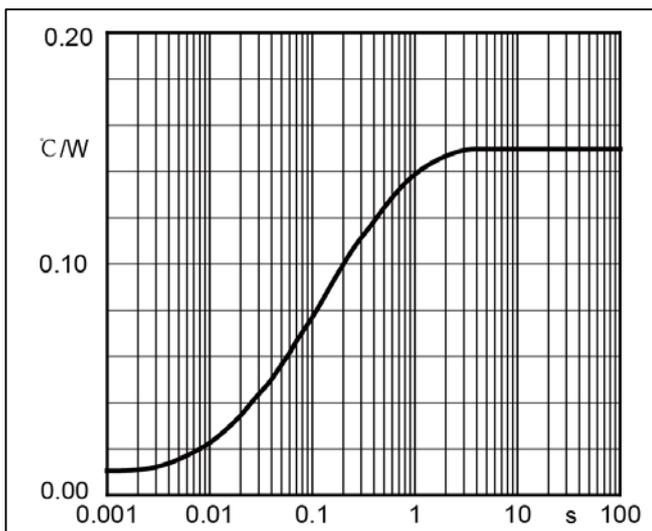


Fig3. Transient thermal impedance

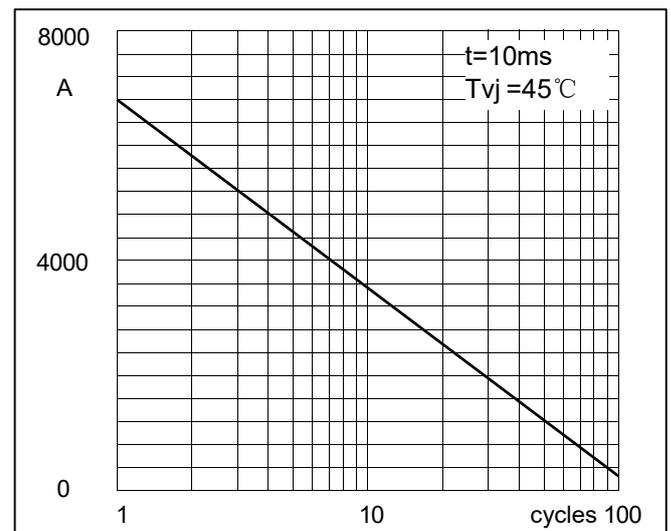


Fig4. Max Non-Repetitive Forward Surge Current

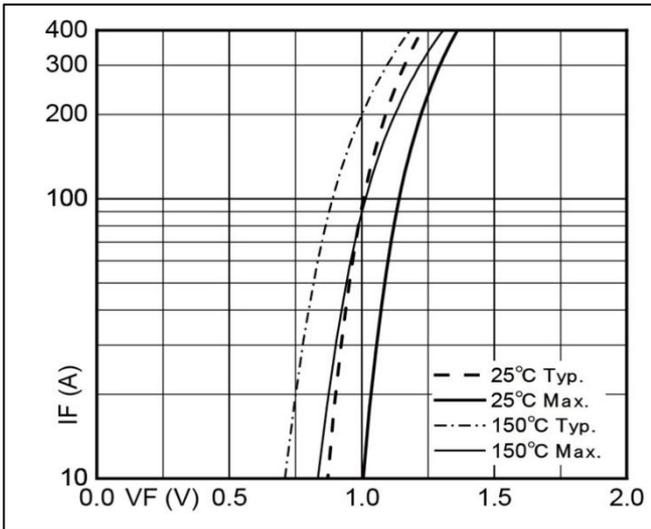
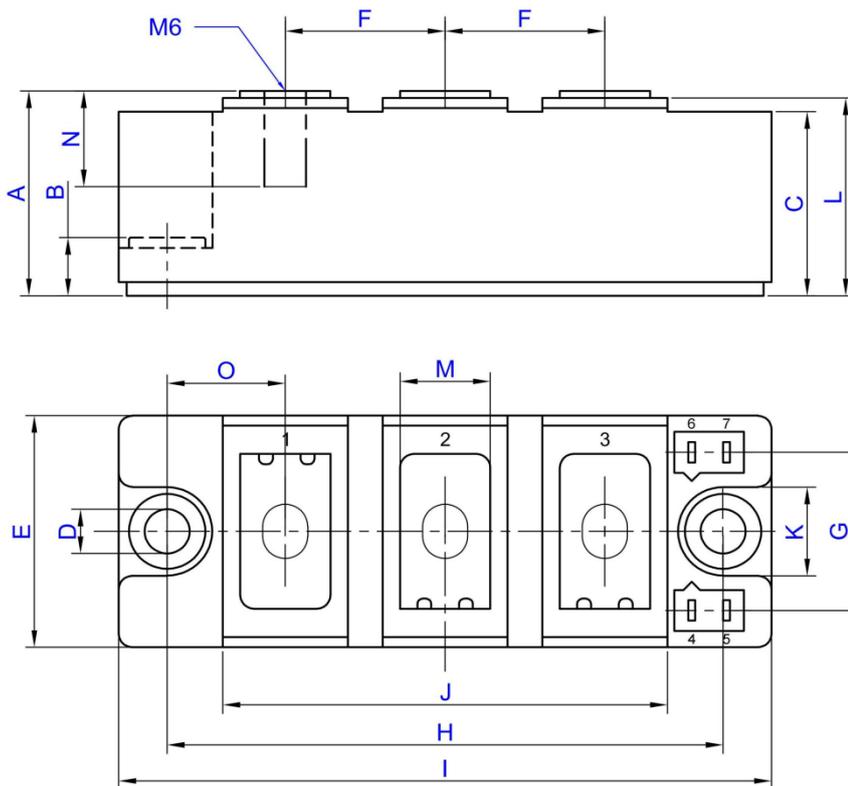


Fig5. Forward Characteristics

## Package Outline Information

### CASE: D2



DIM	Min (mm)	Max (mm)	Note
A	29.5	30.5	
B	8.0	9.0	
C	26.5	27.5	
D	6.3	6.7	∅
E	33.5	34.5	
F	22.8	23.2	
G	22.7	23.7	
H	79.5	80.5	
I	93.5	94.5	
J	63.5	64.5	
K	12.5	13.5	
L	28.5	29.5	
M	12.9	13.1	
N	13.5	14.5	
O	16.5	17.5	



# MD200C(A/K)22D2

RoHS  
COMPLIANT

## 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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