



## Rectifier Diode Module

**VRRM** 2200 to 2800V

**IFAV** 1000A

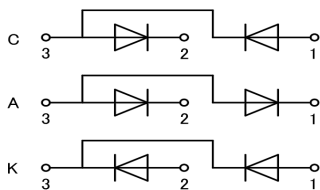
### Applications

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

### Features

- International standard package
- High Surge Capability
- Simple Mounting

### Circuit



### Blocking Characteristics

TYPE			VRRM	VRSM	Units
MD1000C22D6	MD1000A22D6	MD1000K22D6	2200	2400	V
MD1000C24D6	MD1000A24D6	MD1000K24D6	2400	2600	V
MD1000C26D6	MD1000A26D6	MD1000K26D6	2600	2800	V
MD1000C28D6	MD1000A28D6	MD1000K28D6	2800	3000	V

### Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100°C	1000	A
	Single phase ,half wave 180° conduction Tc=85°C	1200	A
IFSM	t=10ms Tvj=TvjM	28000	A
i <sup>2</sup> t	t=10ms Tvj=TvjM	3920000	A <sup>2</sup> s
V <sub>isol</sub>	a.c.50HZ;r.m.s.;1min,I <sub>iso</sub> :2mA(max)	3000	V
Tvj		-40 to 150	°C
T <sub>stg</sub>		-40 to 125	°C
Mt	To terminals(M12)	14±15%	Nm
Ms	To heatsink(M8)	10±15%	Nm
Weight	Module (Approximately)	4050	g

### Thermal Characteristics

Symbol	Conditions	Values	Units
R <sub>th(j-c)</sub>	per diode	0.048	°C/W
R <sub>th(c-s)</sub>	per diode	0.020	°C/W

### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V <sub>FM</sub>	T=25°C I <sub>F</sub> =3000A			1.45	V
I <sub>RRM</sub>	Tvj=TvjM V=VRRM			40	mA
V <sub>FO</sub>	Tvj=TvjM			0.72	V
r <sub>F</sub>	Tvj=TvjM			0.13	mΩ

## Performance Curves

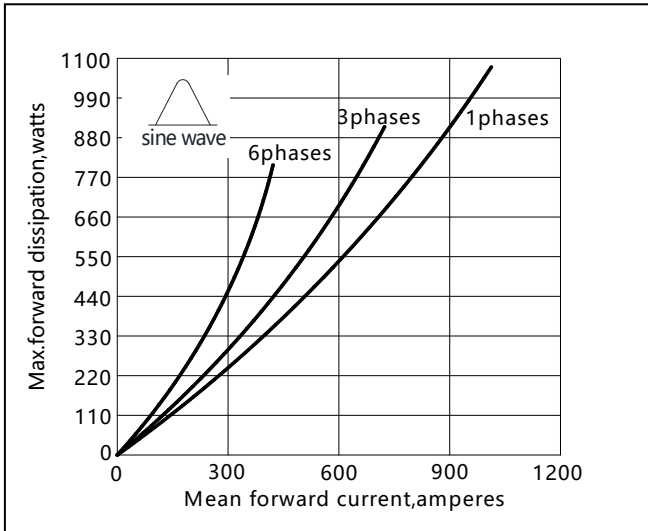


Fig1. Power dissipation

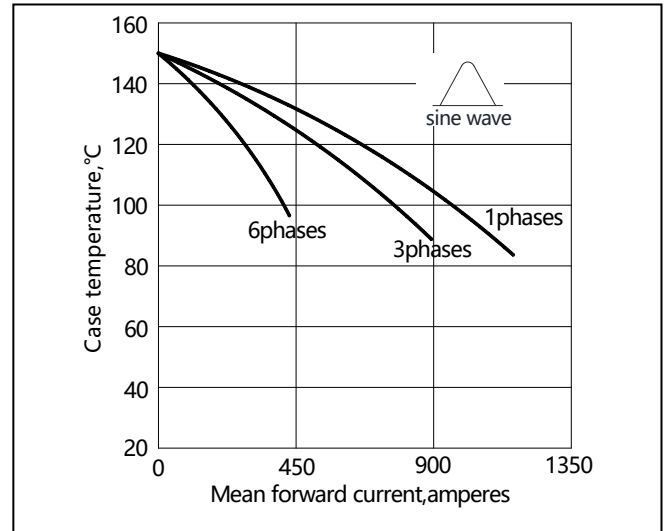


Fig2. Forward Current Derating Curve

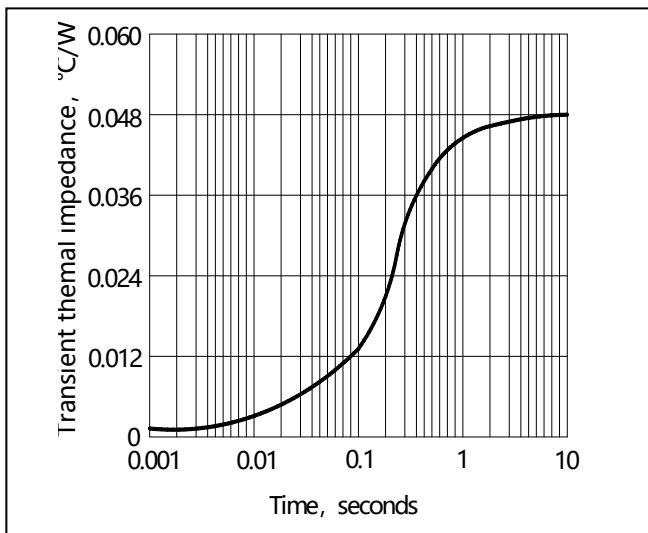


Fig3. Transient thermal impedance

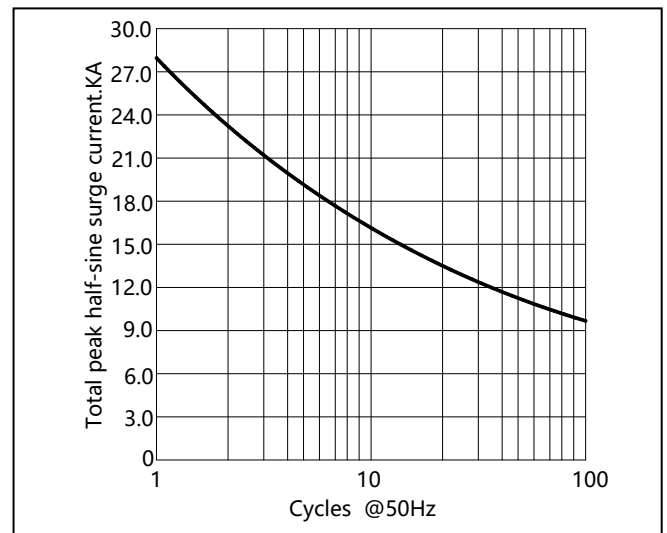


Fig4. Max Non-Repetitive Forward Surge Current

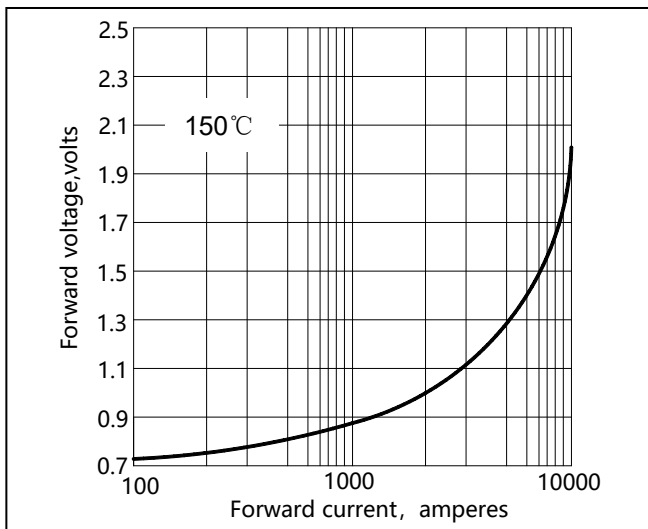
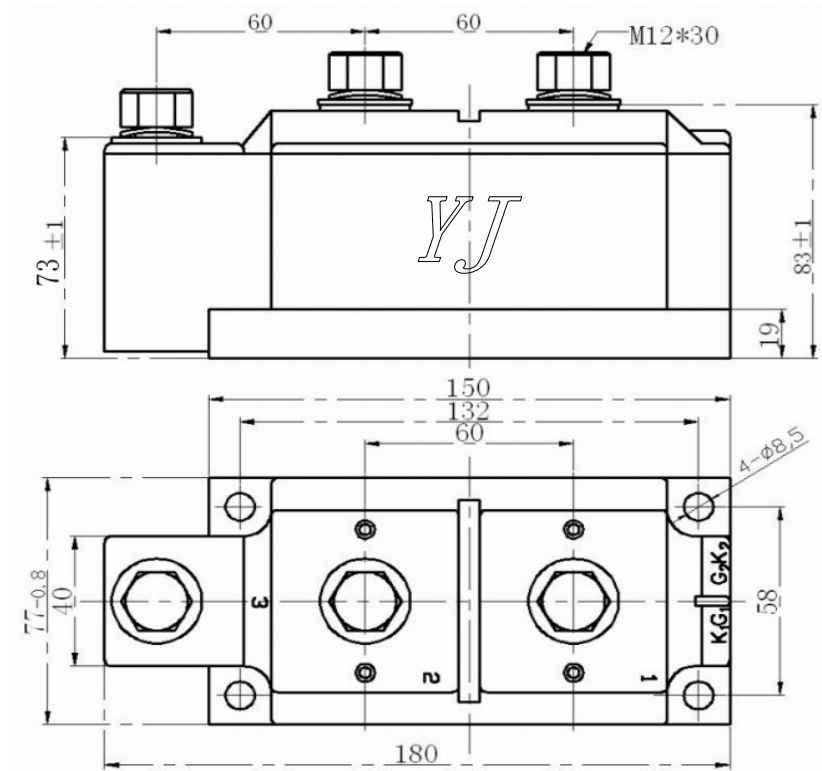


Fig5. Forward Characteristics

## Package Outline Information

CASE: D9



Dimensions in mm

Unmarked dimensional tolerance:  $\pm 0.5\text{mm}$