



MD1000C(A/K)-D9



Rectifier Diode Module

VRRM 1200 to 2000V

IFAV 1000A

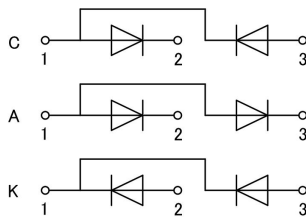
Applications

- 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



Module Type

TYPE			VRRM	VRSM
MD1000C12D9	MD1000A12D9	MD1000K12D9	1200V	1300V
MD1000C14D9	MD1000A14D9	MD1000K14D9	1400V	1500V
MD1000C16D9	MD1000A16D9	MD1000K16D9	1600V	1760V
MD1000C18D9	MD1000A18D9	MD1000K18D9	1800V	2000V
MD1000C20D9	MD1000A20D9	MD1000K20D9	2000V	2200V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	1000	A
IFSM	t=10ms Tvj=TVjM	28000	A
i ² t	t=10ms Tvj=TVjM	3920000	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(MAX)	2500	V
T _{vj}		-40 to 150	℃
T _{stg}		-40 to 125	℃
Mt	To terminals(M12)	14±15%	Nm
Ms	To heatsink(M8)	11±15%	Nm
Weight	Module (Approximately)	3660	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per diode	0.048	℃/W
R _{th(c-s)}	per diode	0.020	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ IF=3000A			1.44	V
I _{RRM}	Tvj=TVjM V=VRRM			40	mA
V _{FO}	Tvj=TVjM			0.70	V
r _F	Tvj=TVjM			0.138	mΩ

Performance Curves

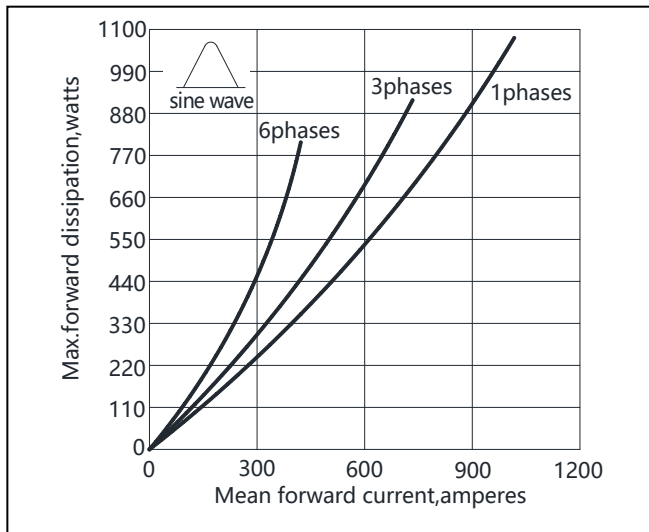


Fig1. Power dissipation

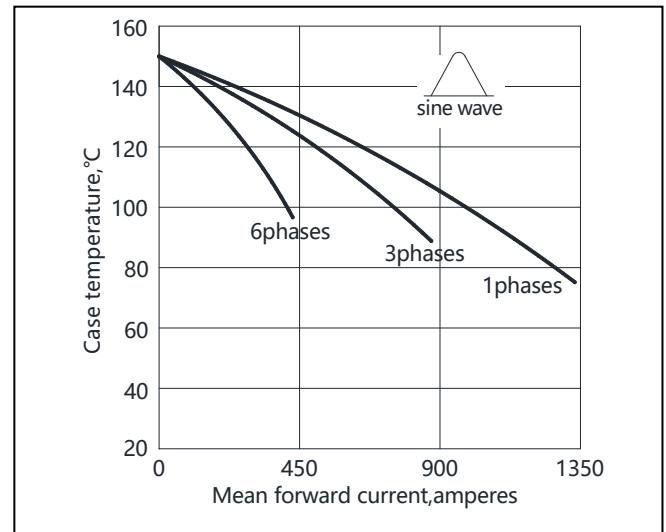


Fig2. Forward Current Derating Curve

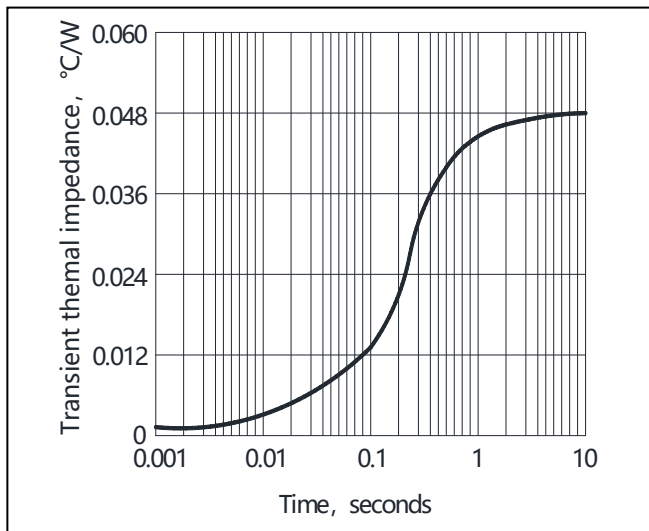


Fig3. Transient thermal impedance

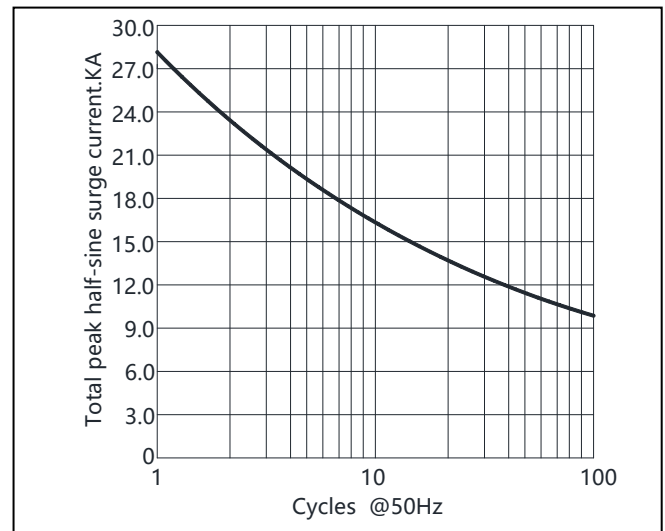


Fig4. Max Non-Repetitive Forward Surge Current

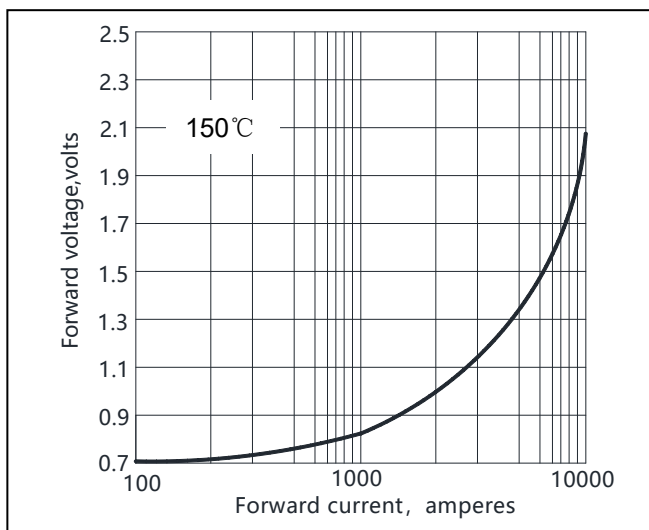
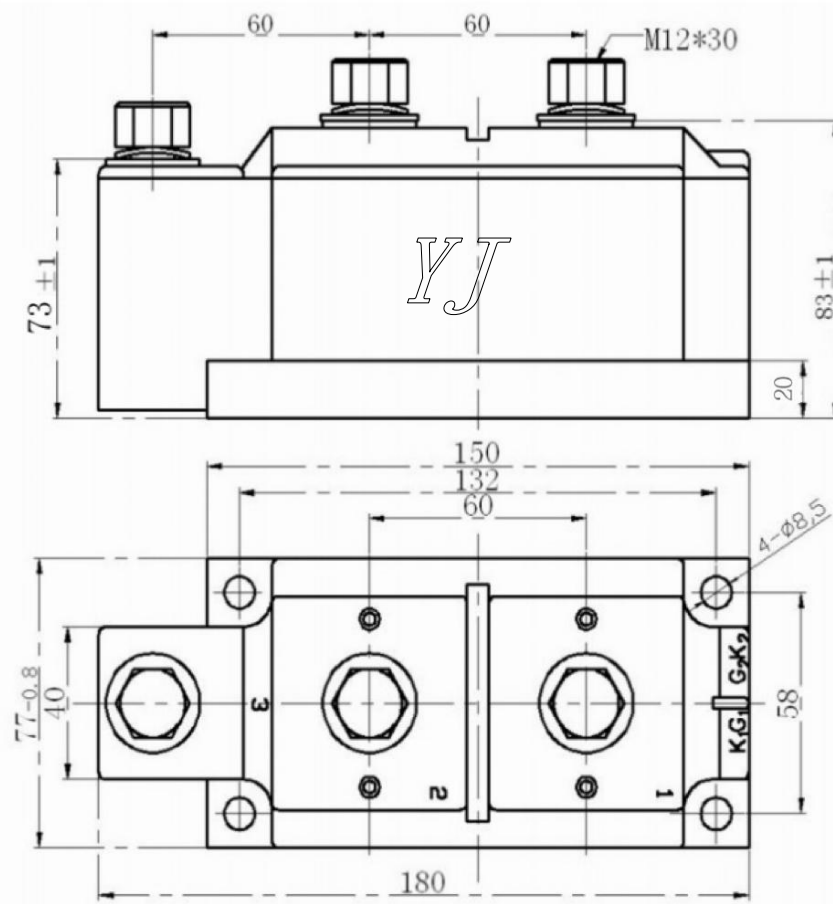


Fig5. Forward Characteristics

Package Outline Information

CASE: D9



Dimensions in mm

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



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