

Rectifier Diode Module



VRRM 1200 to 2000V

IFAV 1200A

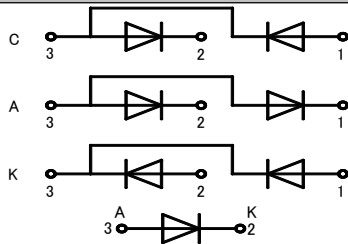
Applications

- 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
MD1200C12D9	MD1200A12D9	MD1200K12D9	MD1200U12D9	1200	1300	V
MD1200C14D9	MD1200A14D9	MD1200K14D9	MD1200U14D9	1400	1500	V
MD1200C16D9	MD1200A16D9	MD1200K16D9	MD1200U16D9	1600	1760	V
MD1200C18D9	MD1200A18D9	MD1200K18D9	MD1200U18D9	1800	2000	V
MD1200C20D9	MD1200A20D9	MD1200K20D9	MD1200U20D9	2000	2200	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=85℃	1200	A
IFRMS		1884	A
IFSM	t=10ms Tvj=TvjM	34000	A
i²t	t=10ms Tvj=TvjM	4500000	A²s
Visol	a.c.50HZ;r.m.s.;1min,Iiso :2mA(max)	2500	V
Tvj		-40 to 150	℃
Tstg		-40 to 125	℃
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
Rth(j-c)	per diode	0.048	℃/W
Rth(c-s)	per diode	0.020	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25℃ IF =3000A Parallel application, 2pcs/group: ±0.05V			1.40	V
IRRM	Tvj=TvjM V=VRRM			40	mA
VFO	Tvj=TvjM			0.70	V
rF	Tvj=TvjM			0.14	mΩ

Performance Curves

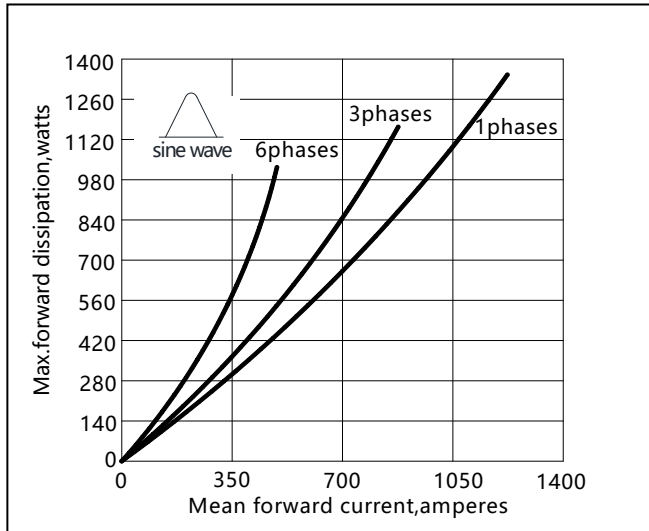


Fig1. Power dissipation

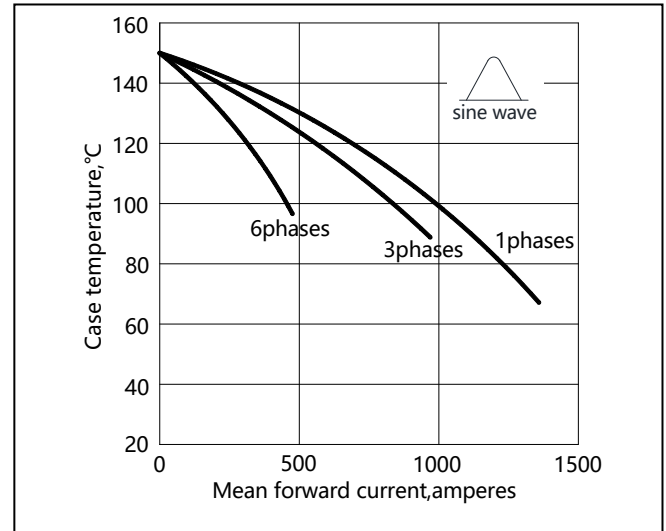


Fig2. Forward Current Derating Curve

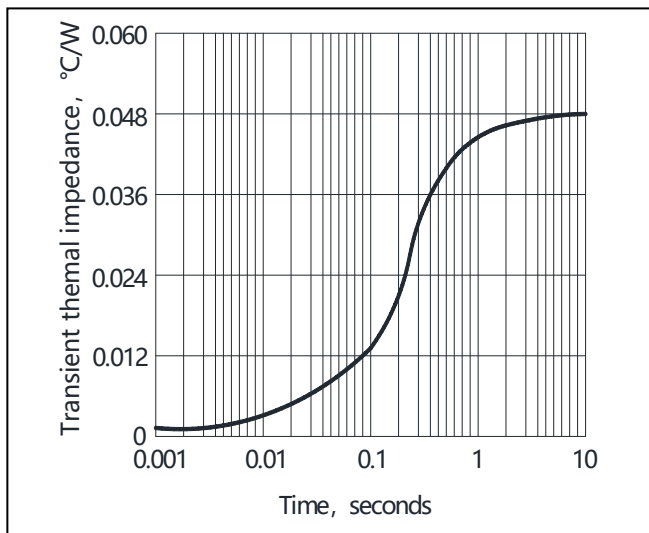


Fig3. Transient thermal impedance

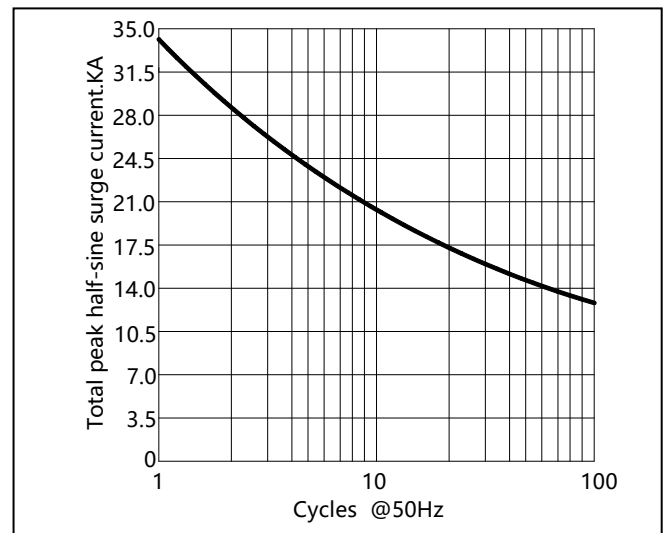


Fig4. Max Non-Repetitive Forward Surge Current

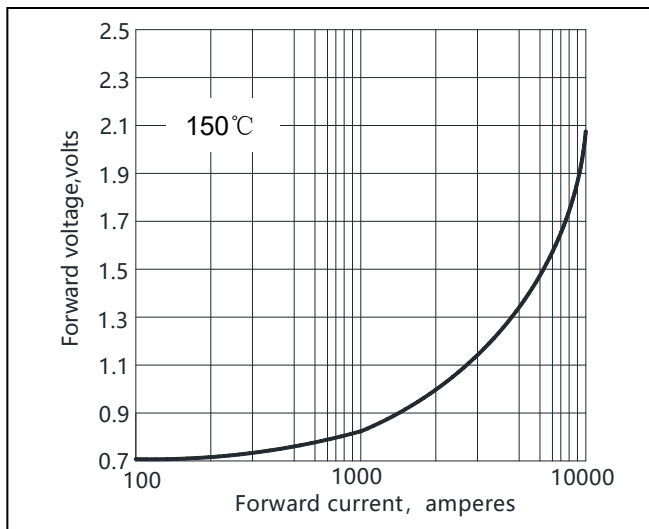
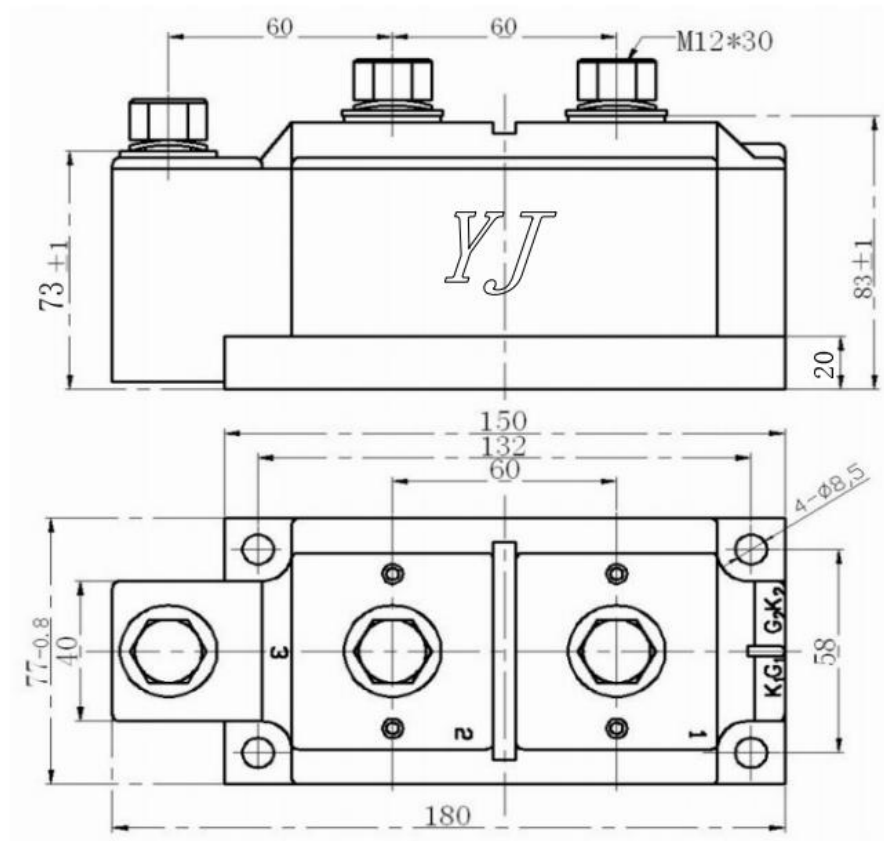


Fig5. Forward Characteristics

Package Outline Information

CASE: D9



Dimensions in mm

Unmarked dimensional tolerance: ±0.5mm



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