



Rectifier Diode Module

VRRM 1200 to 2000V
IFAV 700A

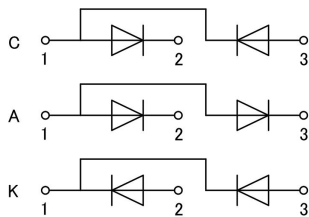
Applications

- 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	VRSRM	Units
MD700C12D6	MD700A12D6	MD700K12D6	1200	1300	V
MD700C14D6	MD700A14D6	MD700K14D6	1400	1500	V
MD700C16D6	MD700A16D6	MD700K16D6	1600	1760	V
MD700C18D6	MD700A18D6	MD700K18D6	1800	2000	V
MD700C20D6	MD700A20D6	MD700K20D6	2000	2200	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=90℃	700	A
IFSM	t=10ms Tvj=TVjM	21000	A
i ² t	t=10ms Tvj=TVjM	2205000	A ² s
Visol	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)	2500	V
Tvj		-40 to 150	℃
Tstg		-40 to 125	℃
Mt	To terminals(M10)	12±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	1650	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per diode	0.071	℃/W
Rth(c-s)	per diode	0.02	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25℃ IF=2000A			1.3	V
IRRM	Tvj=TVjM V=VRRM			20	mA
VFO	Tvj=TVjM			0.7	V
rF	Tvj=TVjM			0.28	mΩ

Performance Curves

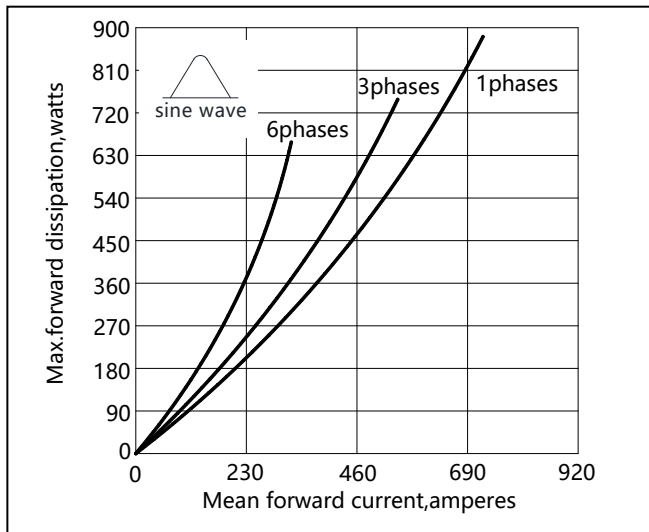


Fig1. Power dissipation

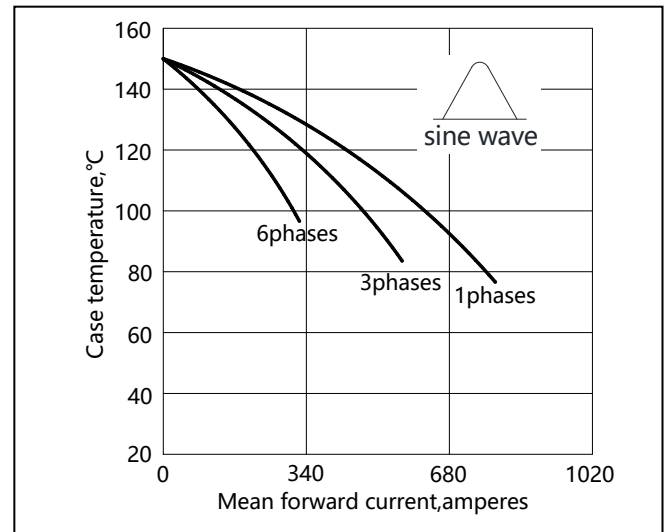


Fig2. Forward Current Derating Curve

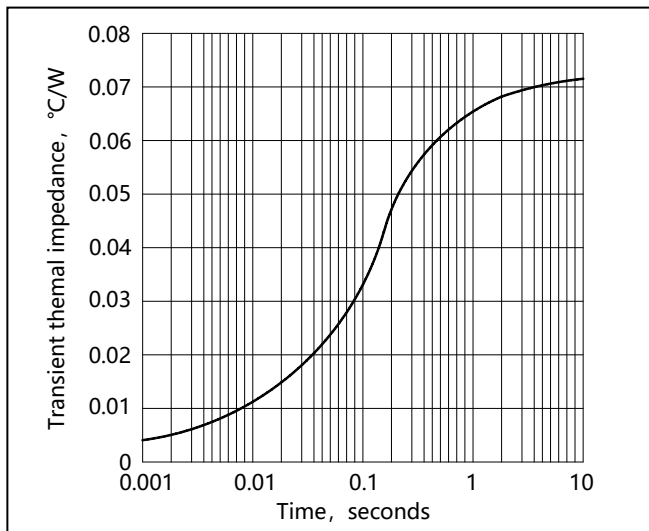


Fig3. Transient thermal impedance

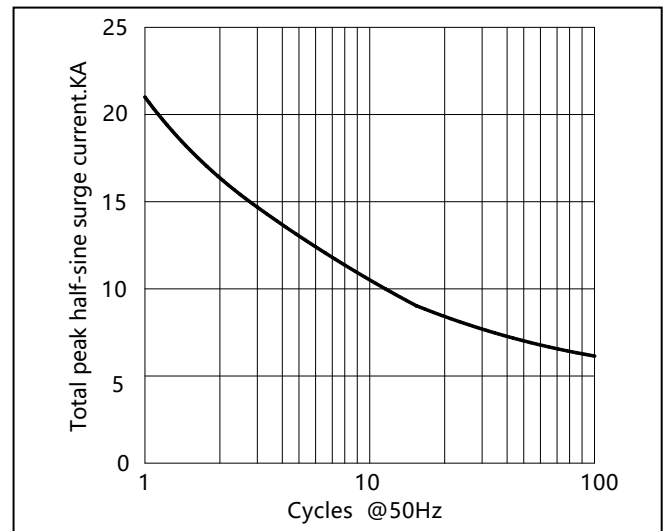


Fig4. Max Non-Repetitive Forward Surge Current

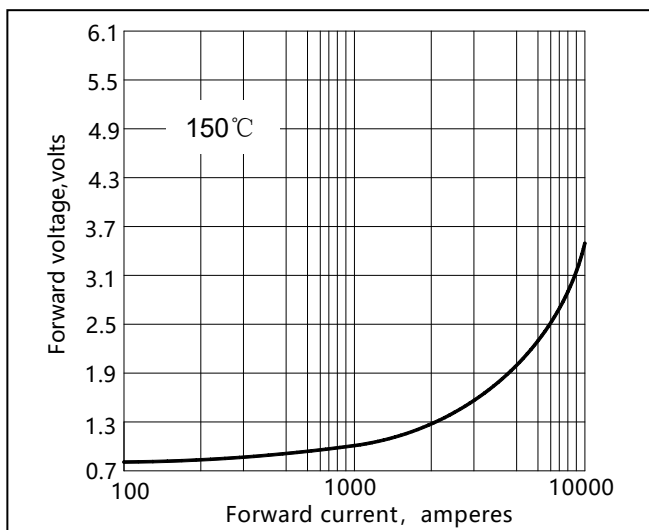
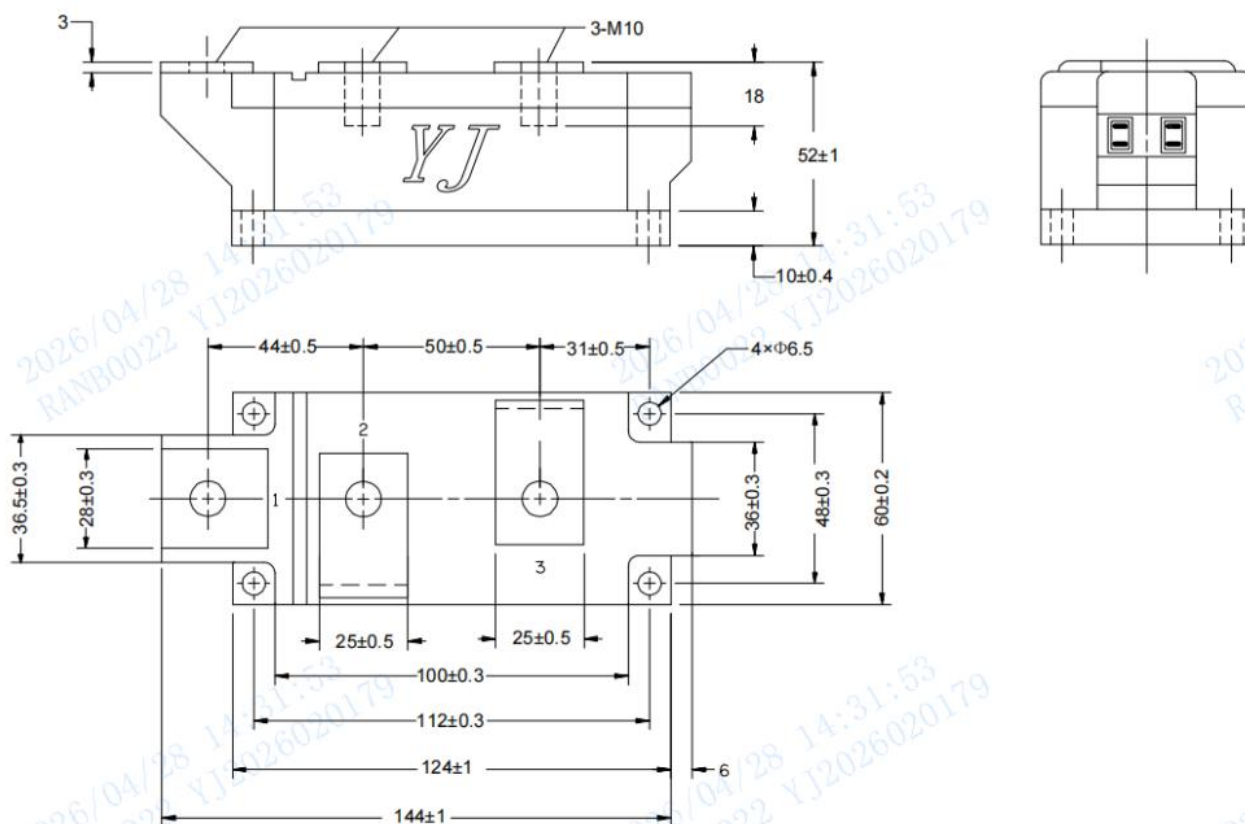


Fig5. Forward Characteristics



CASE: D6



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



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