



Rectifier Diode Module

VRRM 4500V
IFAV 450A

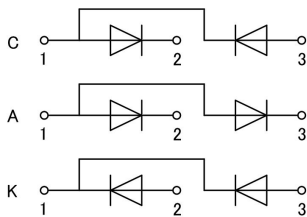
Applications

- 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	VRS	Units
MD450C45D6	MD450A45D6	MD450K45D6	4500	4700	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	450	A
IFSM	t=10ms Tvj=TvjM	13000	A
i ² t	t=10ms Tvj=TvjM	845000	A ² s
Visol	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)	5000	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)	1550	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per diode	0.073	℃/W
Rth(c-s)	per diode	0.02	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25℃ IF=1200A			1.9	V
IRRM	Tvj=TvjM V=VRRM			30	mA
VFO	Tvj=TvjM			0.84	V
rF	Tvj=TvjM			0.6	mΩ



Performance Curves

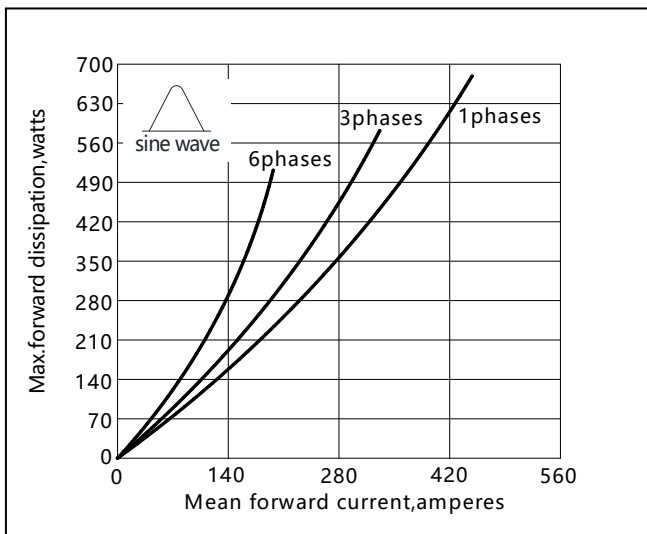


Fig1. Power dissipation

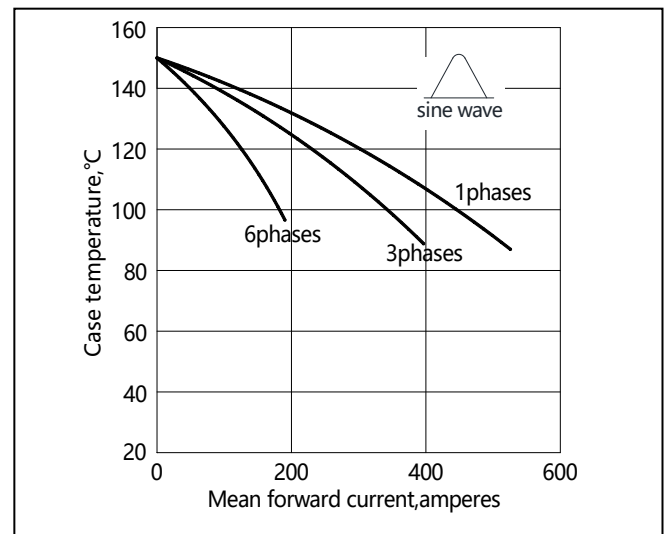


Fig2. Forward Current Derating Curve

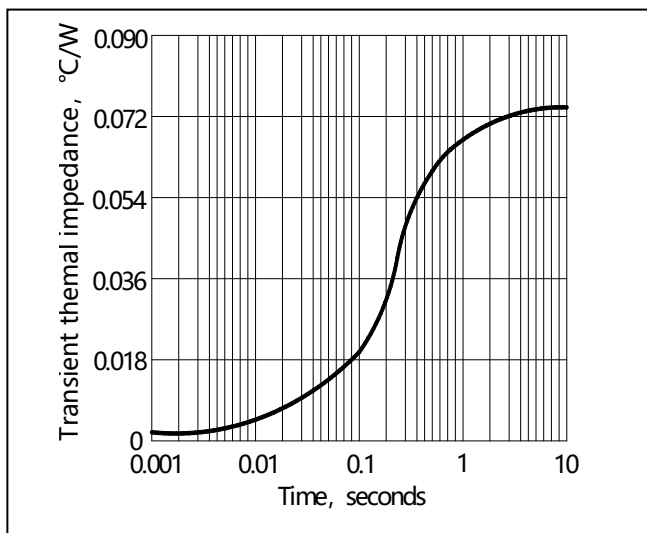


Fig3. Transient thermal impedance

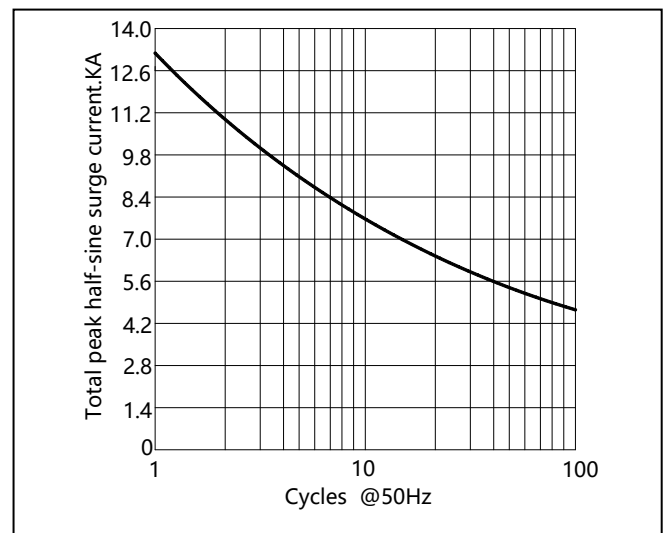


Fig4. Max Non-Repetitive Forward Surge Current

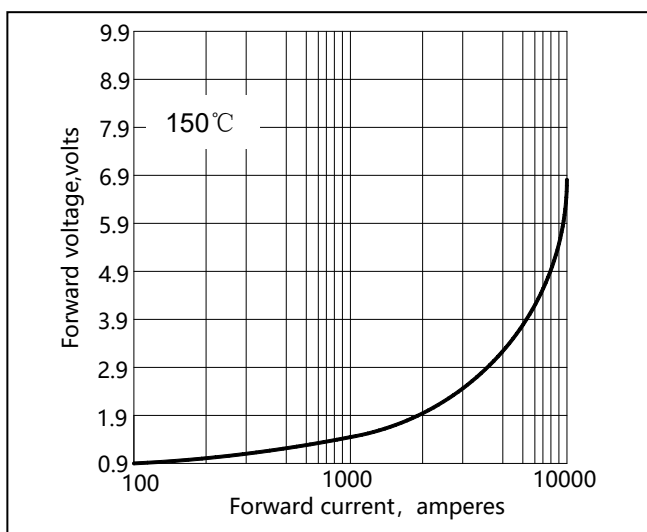
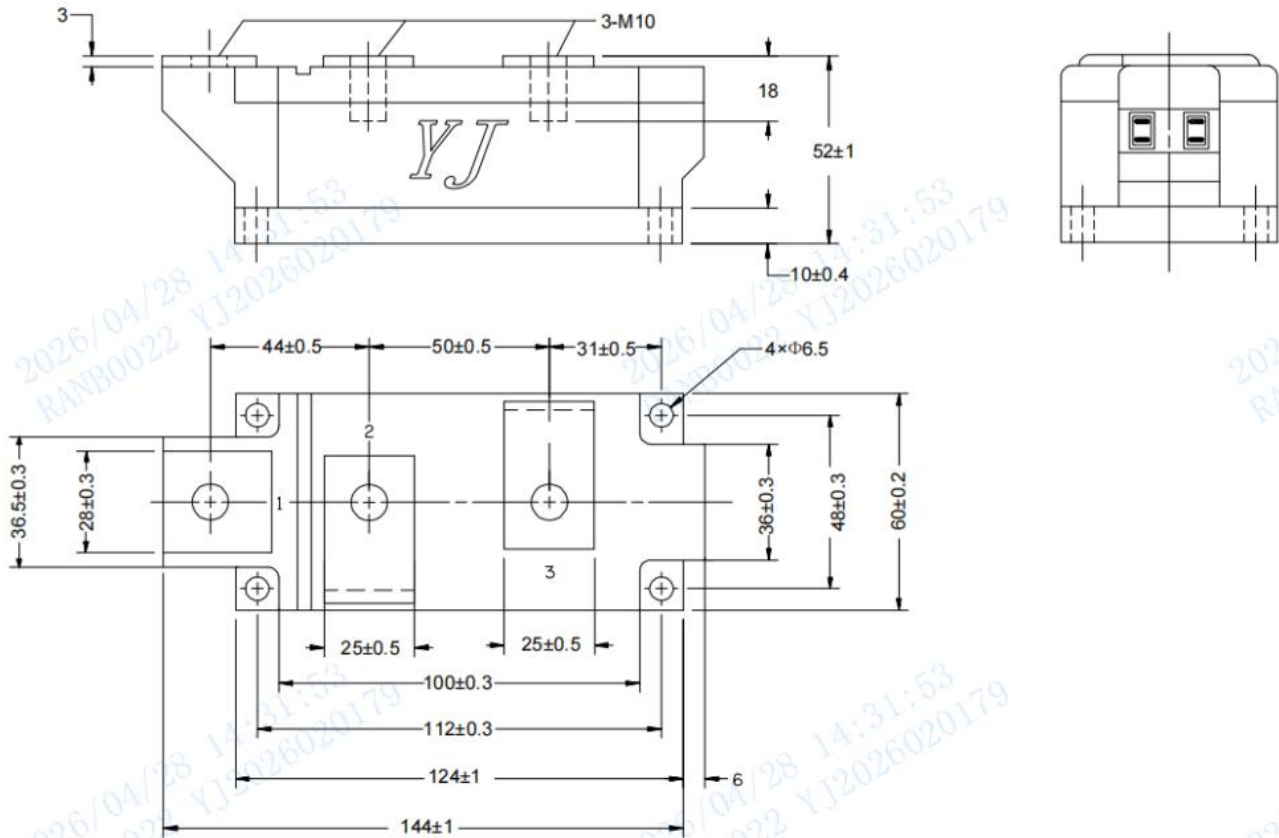


Fig5. Forward Characteristics

Package Outline Information

CASE: D6



Dimensions in mm

Unmarked dimensional tolerance: ±0.5mm



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