



Rectifier Diode Module

VRRM 2200 to 2800V
IFAV 300A

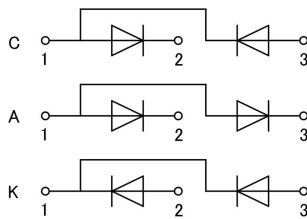
Applications

- 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
MD300C22D3	MD300A22D3	MD300K22D3	2200	2400	V
MD300C24D3	MD300A24D3	MD300K24D3	2400	2600	V
MD300C26D3	MD300A26D3	MD300K26D3	2600	2800	V
MD300C28D3	MD300A28D3	MD300K28D3	2800	3000	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	300	A
IFSM	t=10ms Tvj=TvjM	10000	A
i ² t	t=10ms Tvj=TvjM	500000	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)	3000	V
Tvj		-40 to 150	℃
T _{stg}		-40 to 125	℃
Mt	To terminals(M8)	12±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	690	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per diode	0.12	℃/W
R _{th(c-s)}	per diode	0.04	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ IF=900A			1.45	V
I _{RRM}	Tvj=TvjM V=VRRM			20	mA
V _{FO}	Tvj=TvjM			0.96	V
r _F	Tvj=TvjM			0.5	mΩ



Performance Curves

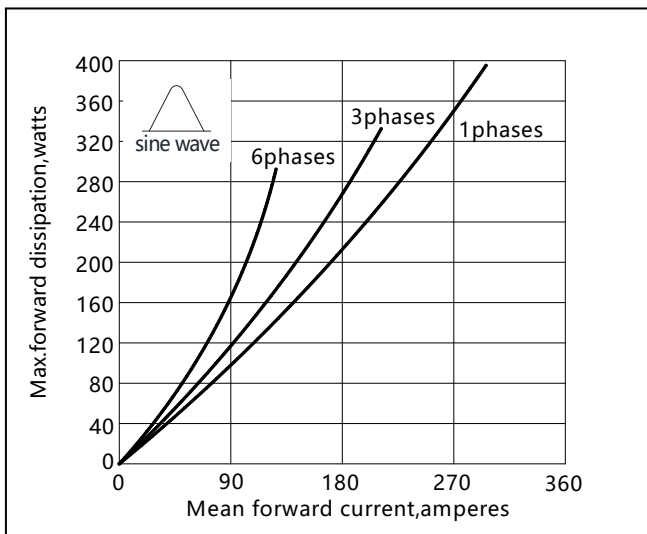


Fig1. Power dissipation

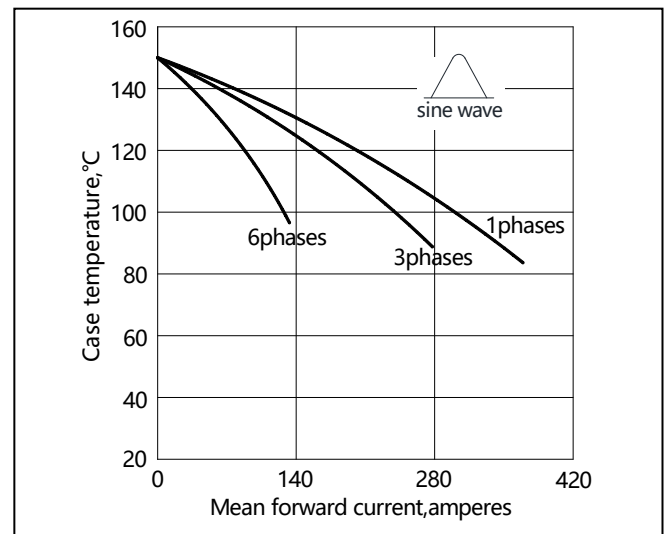


Fig2. Forward Current Derating Curve

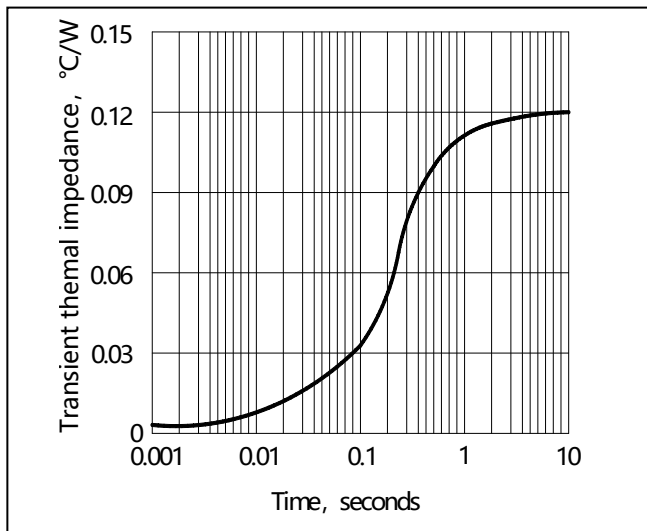


Fig3. Transient thermal impedance

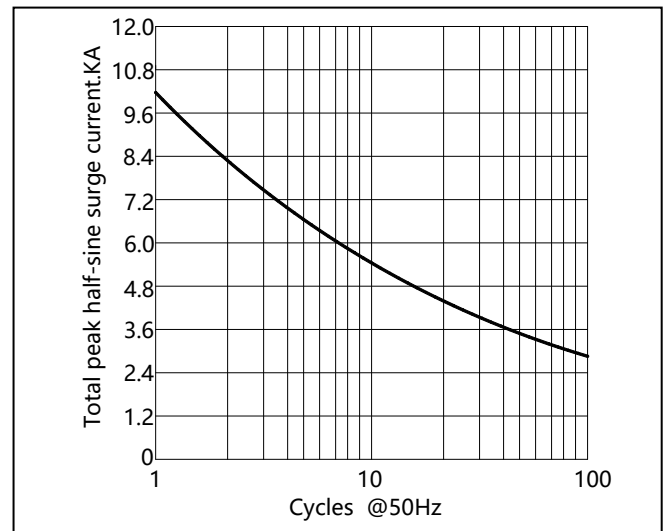


Fig4. Max Non-Repetitive Forward Surge Current

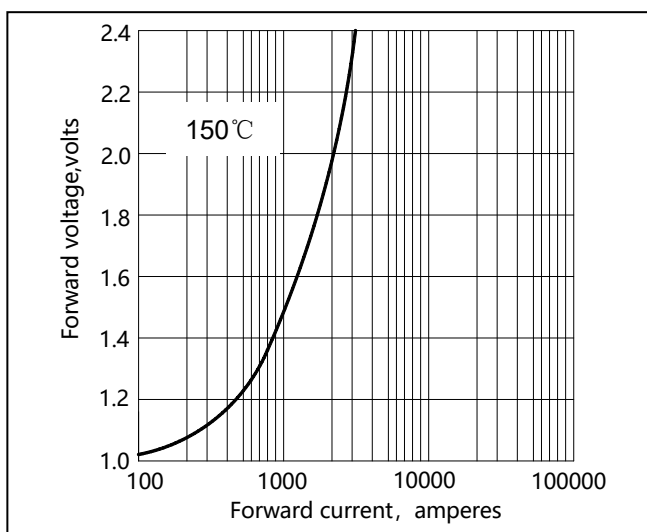


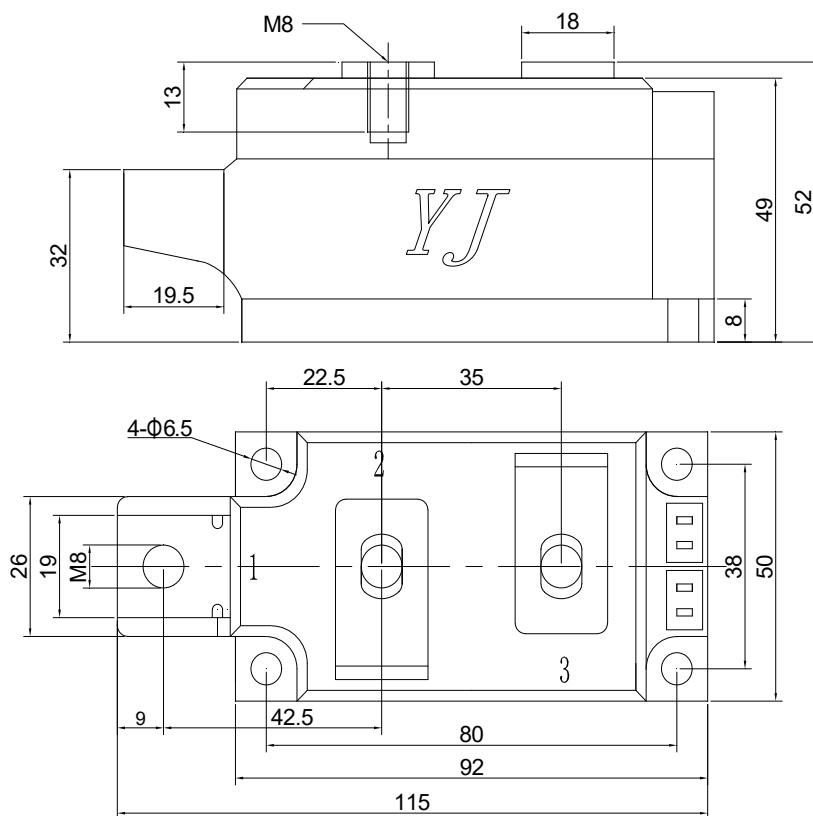
Fig5. Forward Characteristics



MD300C(A/K)-D3

Package Outline Information

CASE: D3



Dimensions in mm

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