

Rectifier Diode Module



VRRM 1200 to 1800V
IFAV 700A

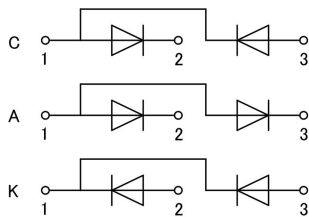
Applications

- 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
MD700C12GD6	MD700A12GD6	MD700K12GD6	1200V	1300V	V
MD700C14GD6	MD700A14GD6	MD700K14GD6	1400V	1500V	V
MD700C16GD6	MD700A16GD6	MD700K16GD6	1600V	1760V	V
MD700C18GD6	MD700A18GD6	MD700K18GD6	1800V	2000V	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	700	A
IFSM	t=10ms Tvj=TvjM	21000	A
i ² t	t=10ms Tvj=TvjM	2205000	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)	2500	V
Tvj		-40 to 150	℃
T _{stg}		-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
R _{th(j-c)}	per diode	0.061	℃/W
R _{th(c-s)}	per diode	0.04	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ IF =2000A			1.3	V
I _{RRM}	Tvj=TvjM V=VRRM			30	mA
V _{FO}	Tvj=TvjM			0.67	V
r _F	Tvj=TvjM			0.29	mΩ



Performance Curves

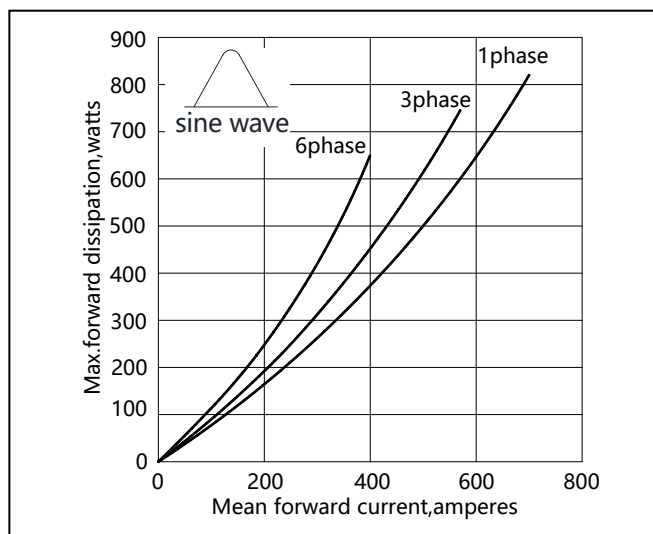


Fig1. Power dissipation

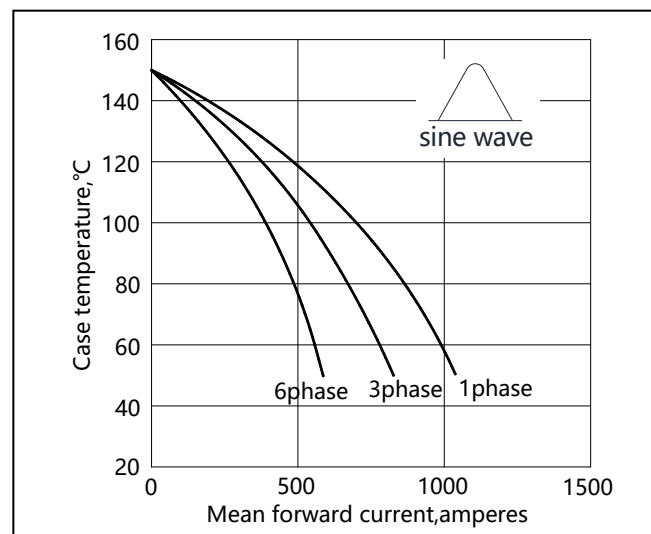


Fig2. Forward Current Derating Curve

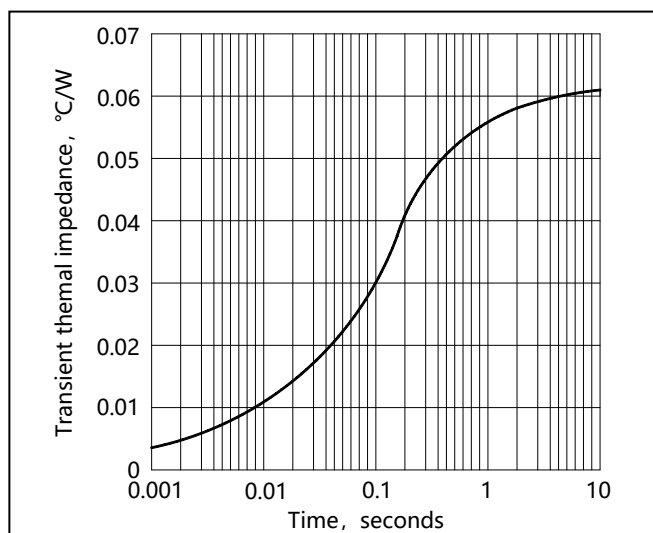


Fig3. Transient thermal impedance

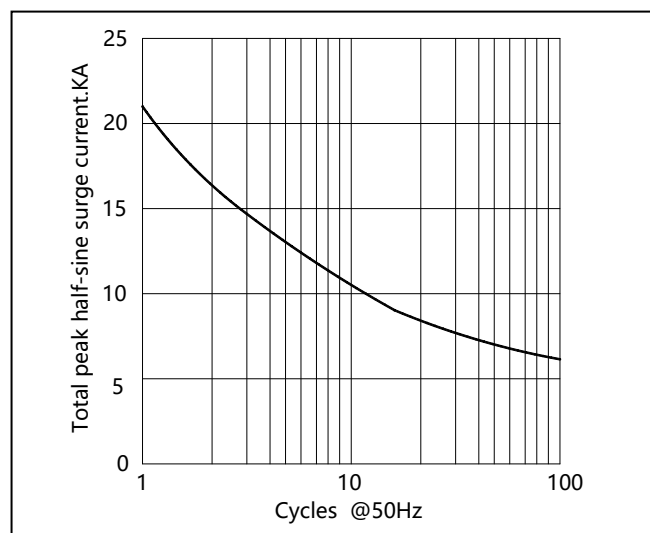


Fig4. Max Non-Repetitive Forward Surge Current

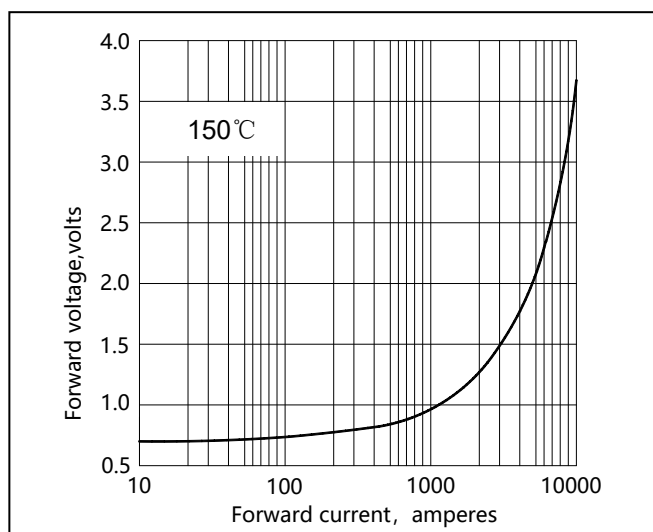


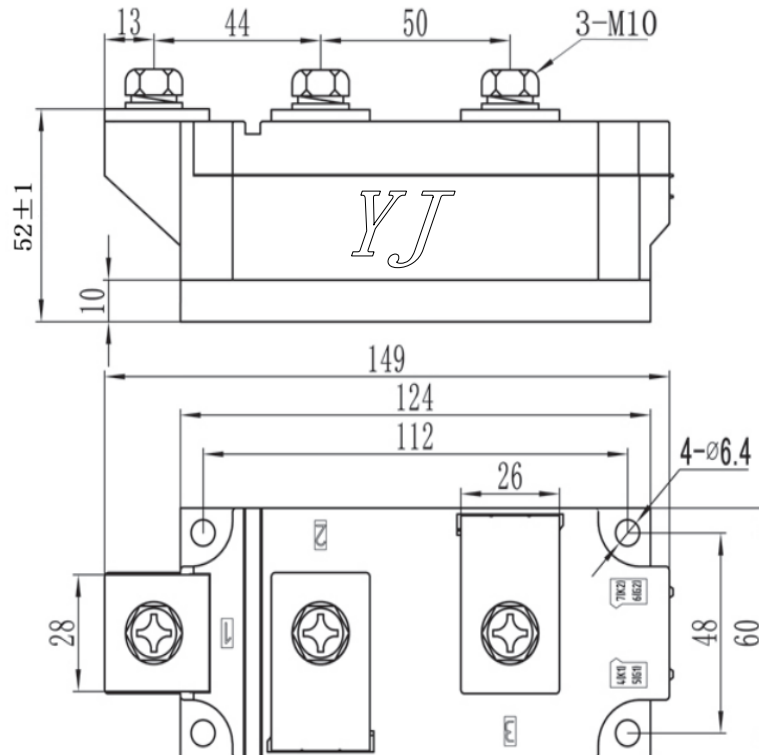
Fig5. Forward Characteristics



MD700C(A/K)-GD6

Package Outline Information

CASE: GD6



Dimensions in mm

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