



Rectifier Diode Module

VRRM 1200 to 1800V

IFAV 600A

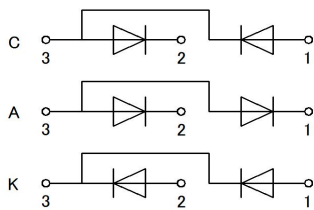
Applications

- 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
MD600C12D7	MD600A12D7	MD600K12D7	1200	1300	V
MD600C14D7	MD600A14D7	MD600K14D7	1400	1500	V
MD600C16D7	MD600A16D7	MD600K16D7	1600	1760	V
MD600C18D7	MD600A18D7	MD600K18D7	1800	2000	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	600	A
IFSM	t=10ms Tvj=TvjM	19000	A
i ² t	t=10ms Tvj=TvjM	1905000	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)	1650	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per diode	0.071	℃/W
R _{th(c-s)}	per diode	0.024	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ IF =1800A			1.30	V
I _{RRM}	Tvj=TvjM V=VRRM			15	mA
V _{FO}	Tvj=TvjM			0.80	V
r _F	Tvj=TvjM			0.26	mΩ



Performance Curves

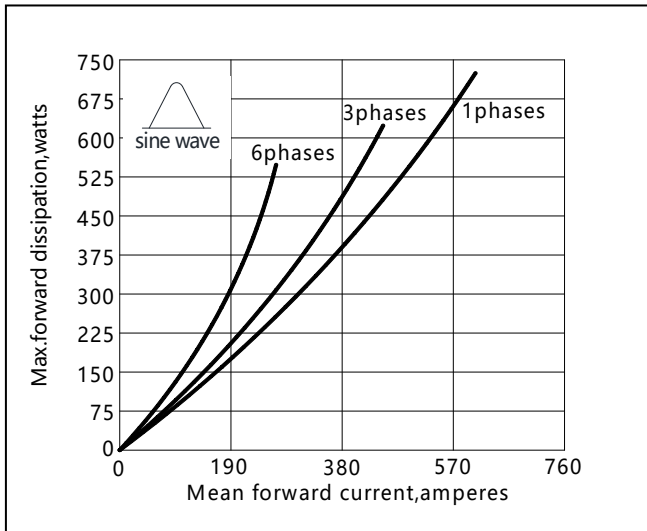


Fig1. Power dissipation

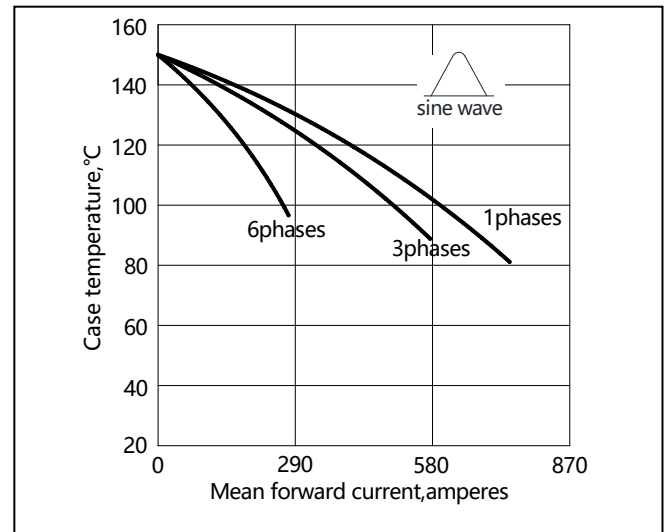


Fig2. Forward Current Derating Curve

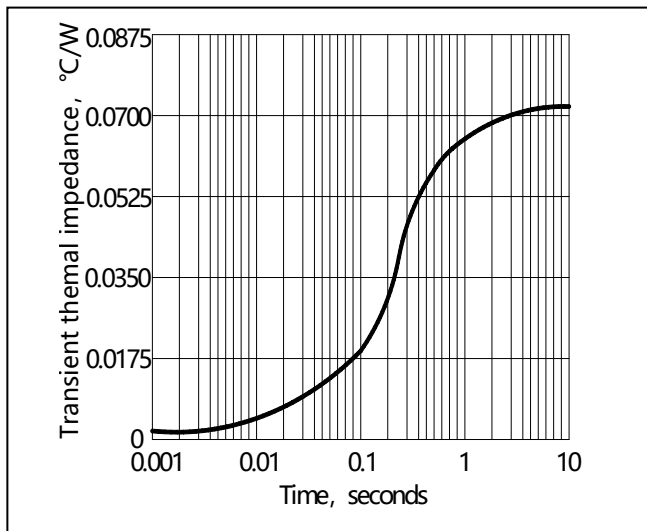


Fig3. Transient thermal impedance

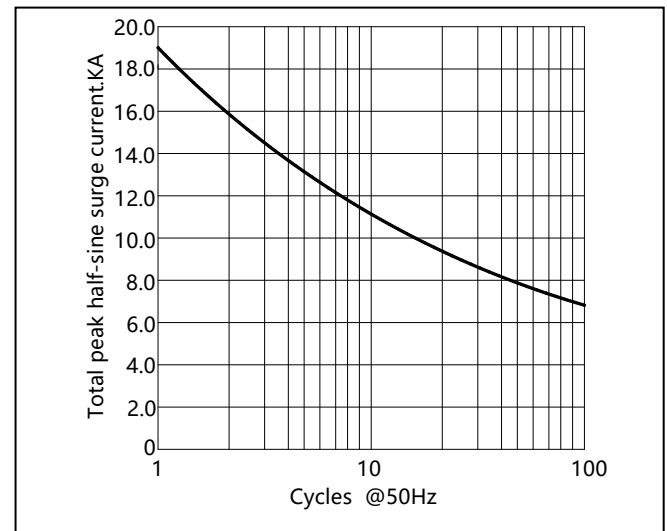


Fig4. Max Non-Repetitive Forward Surge Current

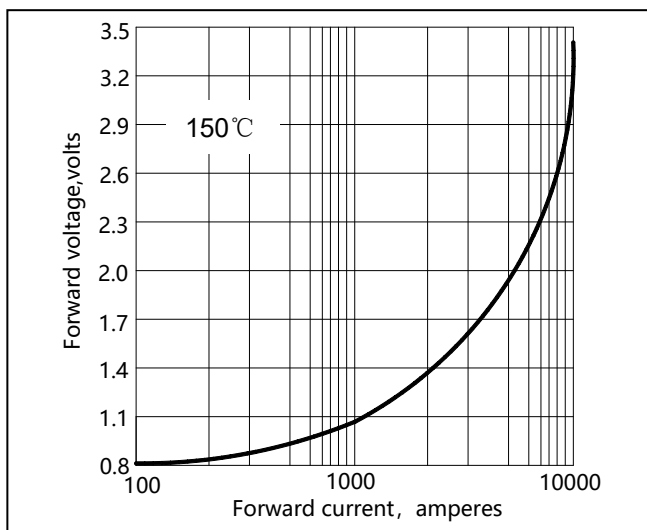
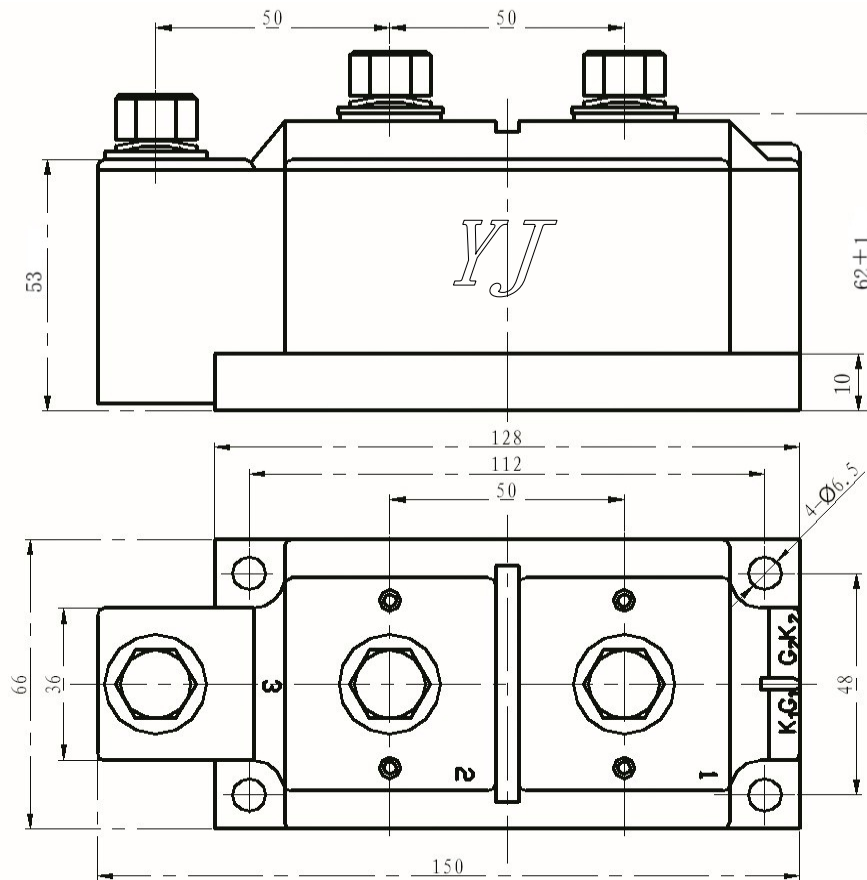


Fig5. Forward Characteristics

Package Outline Information

CASE: D7



Dimensions in mm

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