



Rectifier Diode Module

V_{RRM} 1200 to 2000V
I_{FAV} 600A

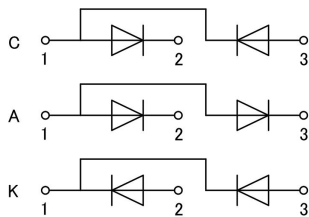
Applications

- 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			V _{RRM}	V _{RSM}	Units
MD600C12D6	MD600A12D6	MD600K12D6	1200V	1300V	V
MD600C14D6	MD600A14D6	MD600K14D6	1400V	1500V	V
MD600C16D6	MD600A16D6	MD600K16D6	1600V	1760V	V
MD600C18D6	MD600A18D6	MD600K18D6	1800V	2000V	V
MD600C20D6	MD600A20D6	MD600K20D6	2000V	2200V	V

Maximum Ratings

Symbol	Conditions	Values	Units
I _{FAV}	Single phase ,half wave 180° conduction T _c =100℃	600	A
I _{FSM}	t=10ms T _{vj} =T _{vjM}	19000	A
i ² t	t=10ms T _{vj} =T _{vjM}	1905000	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)	2500	V
T _{vj}		-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	0.073	℃/W
R _{th(c-s)}	per diode	0.04	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ I _F =1800A			1.35	V
I _{RRM}	T _{vj} =T _{vjM} V=V _{RRM}			30	mA
V _{FO}	T _{vj} =T _{vjM}			0.75	V
r _F	T _{vj} =T _{vjM}			0.28	mΩ



Performance Curves

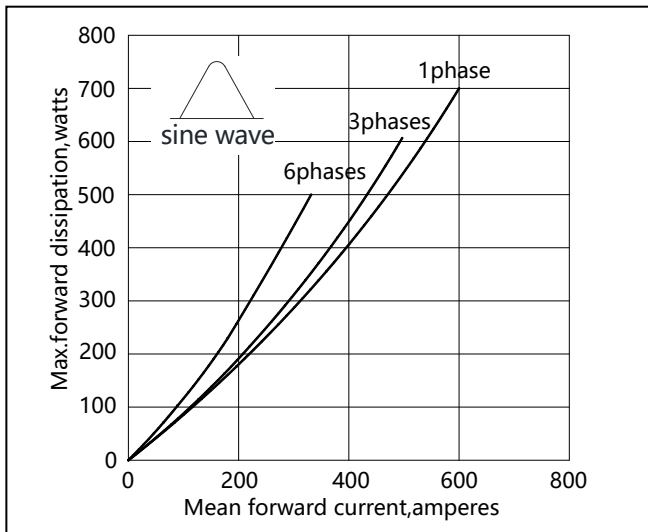


Fig1. Power dissipation

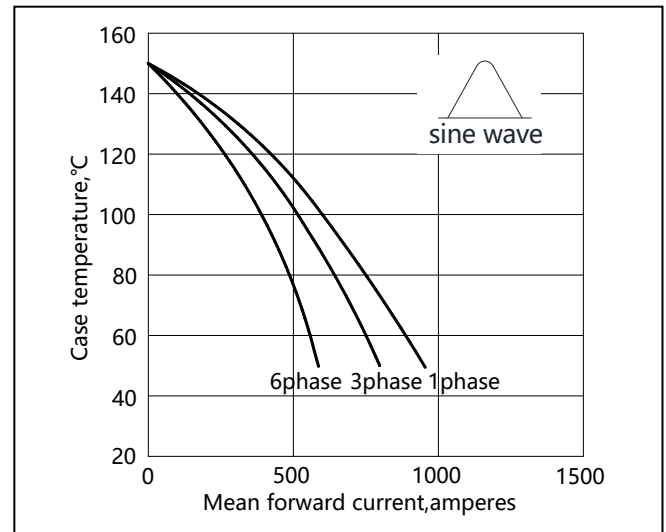


Fig2. Forward Current Derating Curve

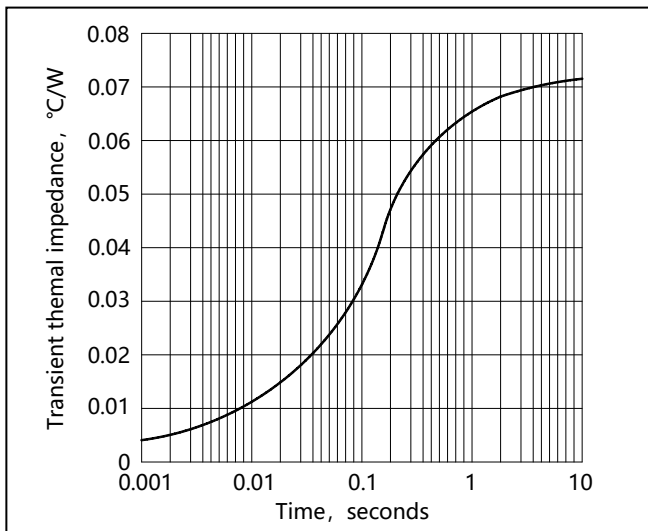


Fig3. Transient thermal impedance

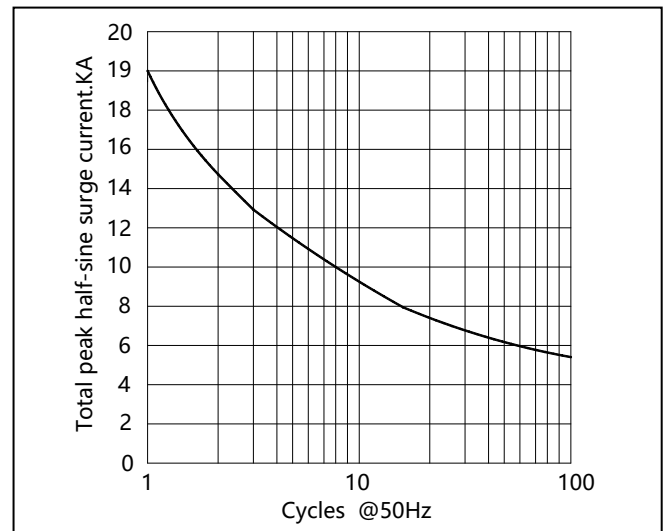


Fig4. Max Non-Repetitive Forward Surge Current

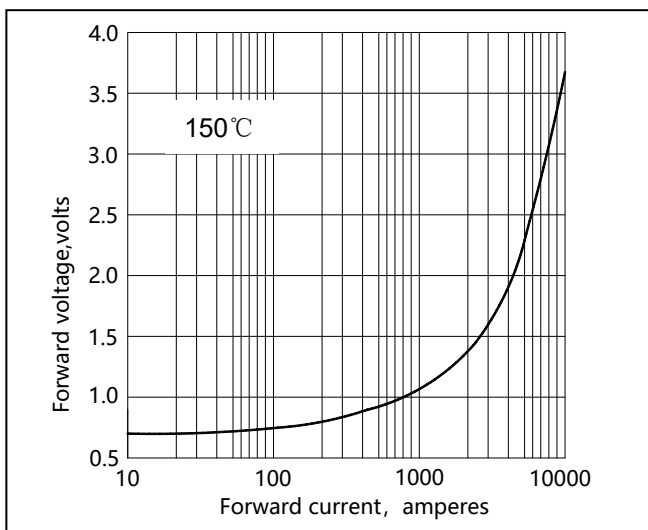
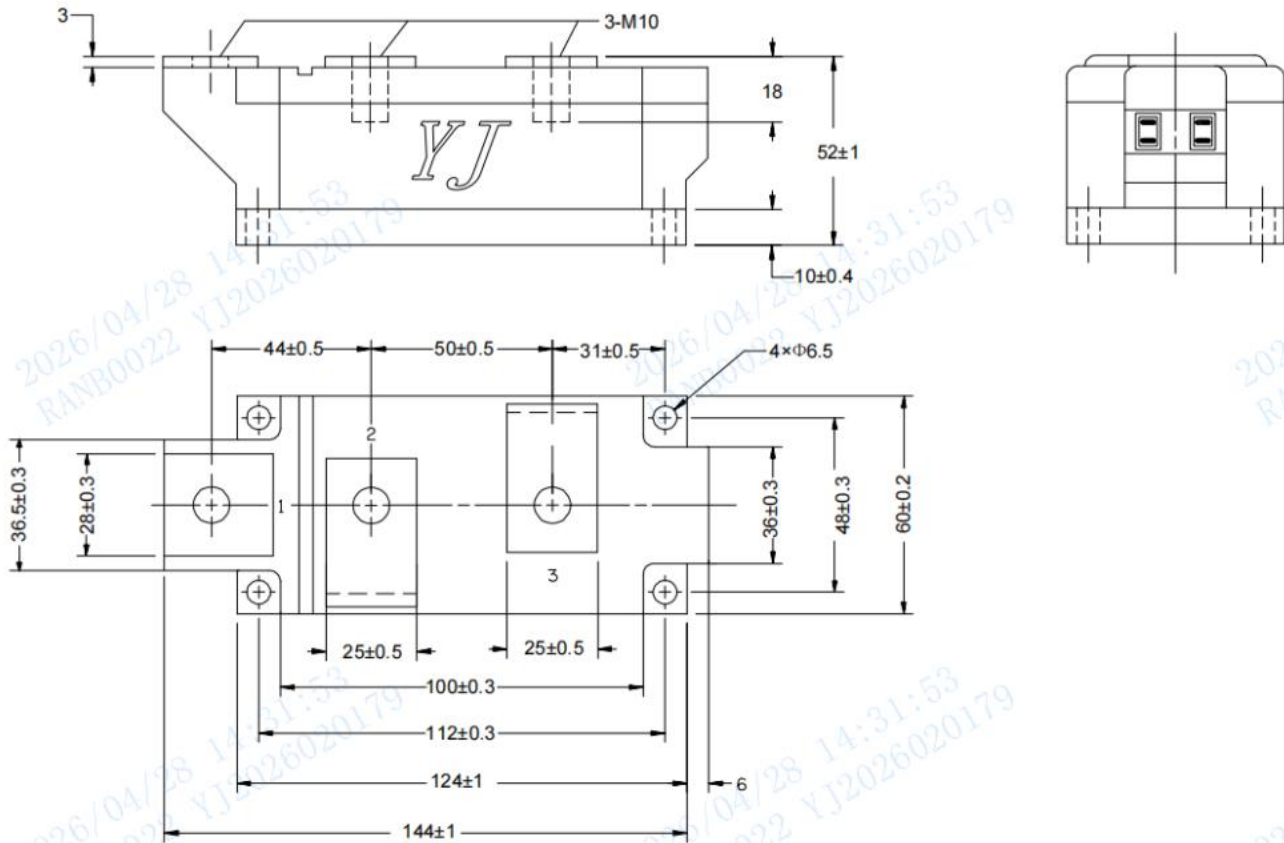


Fig5. Forward Characteristics

Package Outline Information

CASE: D6



Dimensions in mm

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



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