



MD1000C(A/K)-D8

Rectifier Diode Module



VRRM 1200 to 2000V

IFAV 1000A

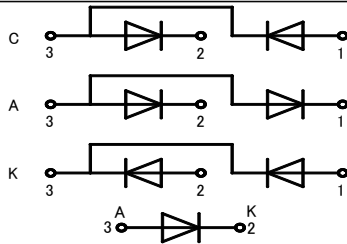
Applications

- 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
MD1000C12D8	MD1000A12D8	MD1000K12D8	MD1000U12D8	1200	1300	V
MD1000C14D8	MD1000A14D8	MD1000K14D8	MD1000U14D8	1400	1500	V
MD1000C16D8	MD1000A16D8	MD1000K16D8	MD1000U16D8	1600	1760	V
MD1000C18D8	MD1000A18D8	MD1000K18D8	MD1000U18D8	1800	2000	V
MD1000C20D8	MD1000A20D8	MD1000K20D8	MD1000U20D8	2000	2200	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=85℃	1000	A
IFRMS		1570	A
IFSM	t=10ms Tvj=TvjM	28000	A
i ² t	t=10ms Tvj=TvjM	3920000	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(M12)	14±15%	Nm
Ms	To heatsink(M8)	10±15%	Nm
Weight	Module (Approximately)	3400	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per diode	0.05	℃/W
R _{th(c-s)}	per diode	0.02	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ IF =2400A			1.4	V
	Parallel application, 2pcs/group: ±0.05V				
I _{RRM}	Tvj=TvjM V=VRRM			30	mA
V _{FO}	Tvj=TvjM			0.78	V
r _F	Tvj=TvjM			0.18	mΩ



Performance Curves

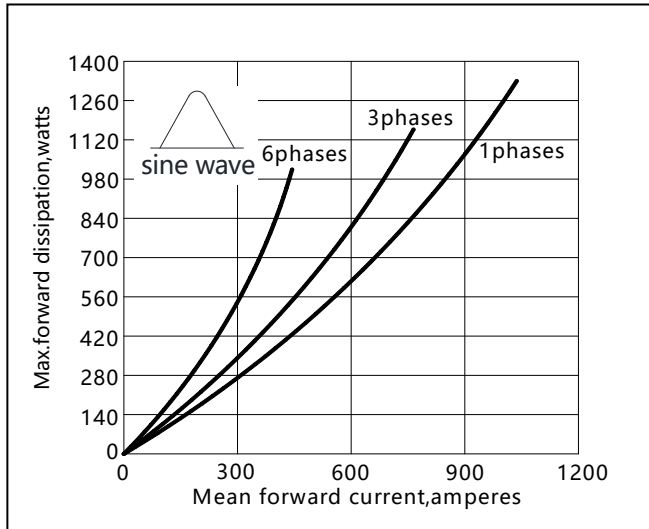


Fig1. Power dissipation

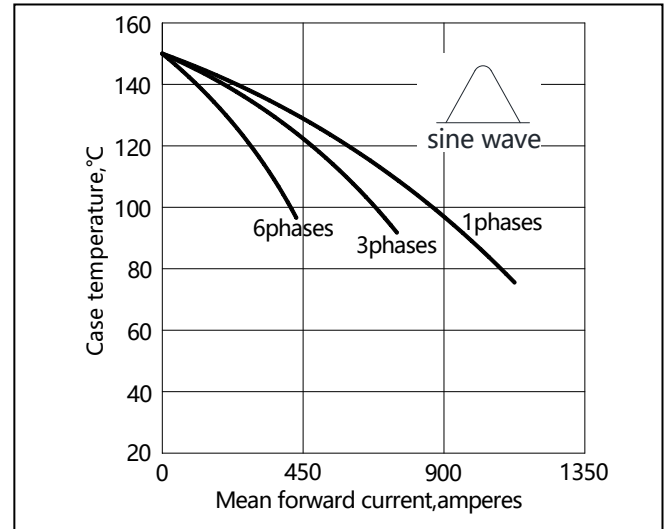


Fig2. Forward Current Derating Curve

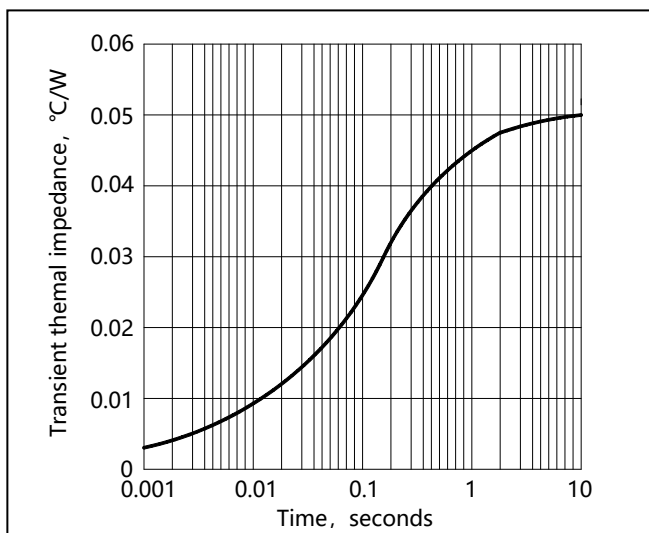


Fig3. Transient thermal impedance

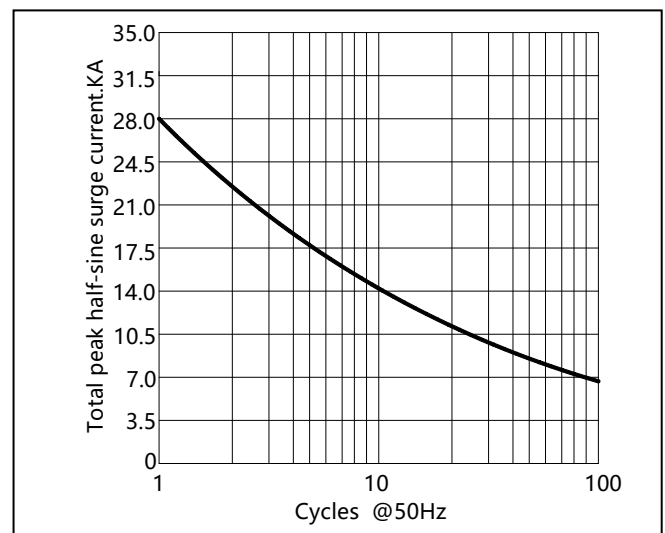


Fig4. Max Non-Repetitive Forward Surge Current

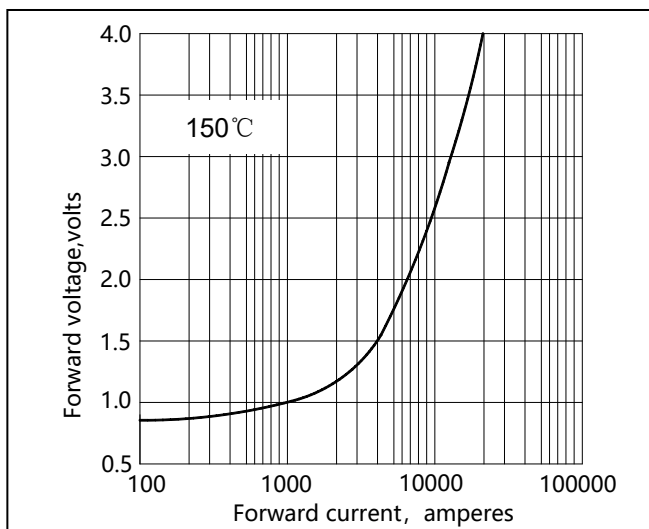


Fig5. Forward Characteristics

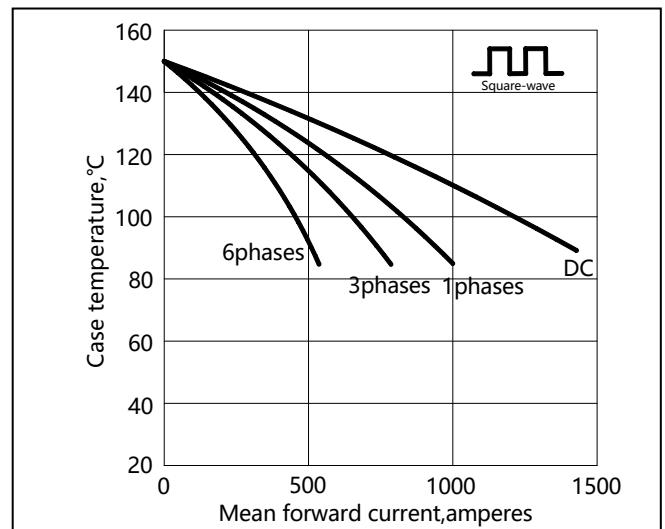


Fig6. Forward Current Derating Curve



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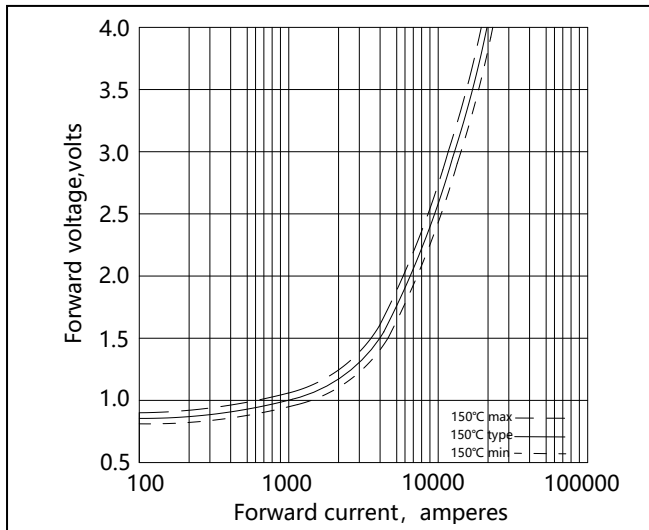


Fig7. Forward Characteristics

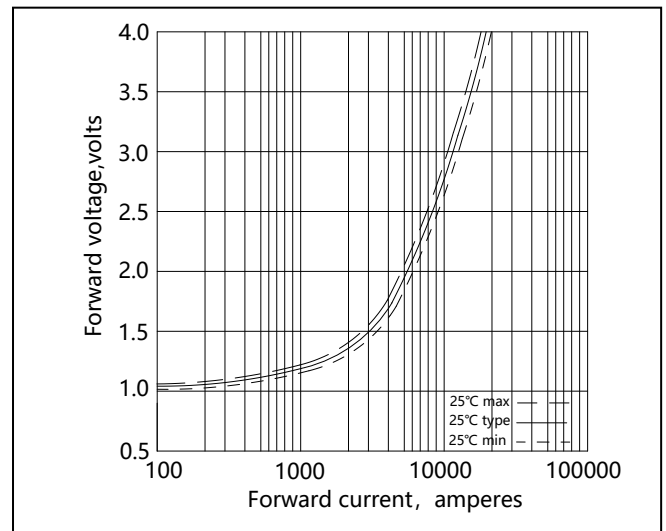


Fig8. Forward Characteristics

CASE: D8





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