



MD1200C(A/K)-D9



Rectifier Diode Module

V_{RRM} 1200 to 2000V

I_{FAV} 1200A

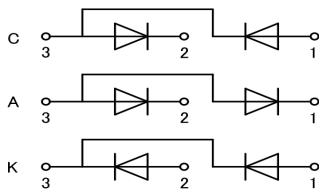
Applications

- 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



Module Type

TYPE			V _{RRM}	V _{RSM}
MD1200C12D9	MD1200A12D9	MD1200K12D9	1200V	1300V
MD1200C14D9	MD1200A14D9	MD1200K14D9	1400V	1500V
MD1200C16D9	MD1200A16D9	MD1200K16D9	1600V	1760V
MD1200C18D9	MD1200A18D9	MD1200K18D9	1800V	2000V
MD1200C20D9	MD1200A20D9	MD1200K20D9	2000V	2200V

Maximum Ratings

Symbol	Conditions	Values	Units
I _{FAV}	Single phase ,half wave 180° conduction T _c =85℃	1200	A
I _{FSM}	t=10ms T _{vj} =T _{vjM}	34000	A
i ² t	t=10ms T _{vj} =T _{vjM}	4500000	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	℃
M _t	To terminals(M12)	14±15%	Nm
M _s	To heatsink(M8)	10±15%	Nm
Weight	Module (Approximately)	4050	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per diode	0.048	℃/W
R _{th(c-s)}	per diode	0.020	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ I _F =3000A			1.40	V
I _{RRM}	T _{vj} =T _{vjM} V=V _{RRM}			40	mA
V _{FO}	T _{vj} =T _{vjM}			0.70	V
r _F	T _{vj} =T _{vjM}			0.14	mΩ



Performance Curves

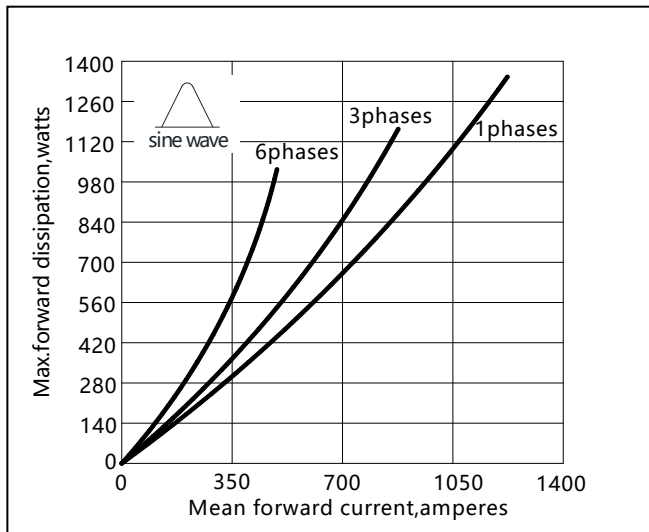


Fig1. Power dissipation

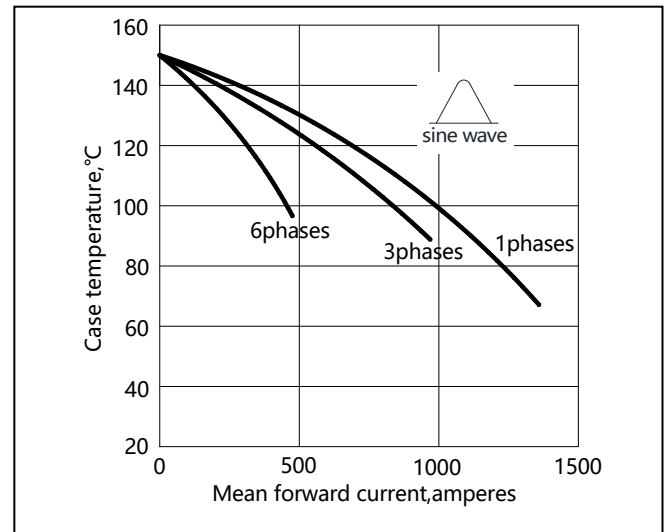


Fig2. Forward Current Derating Curve

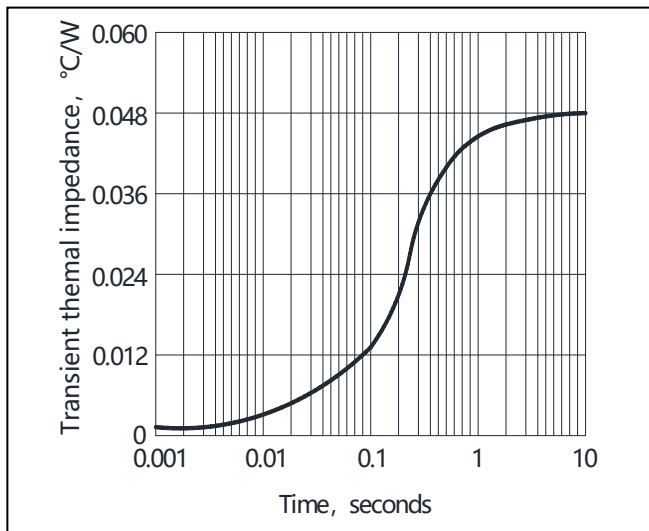


Fig3. Transient thermal impedance

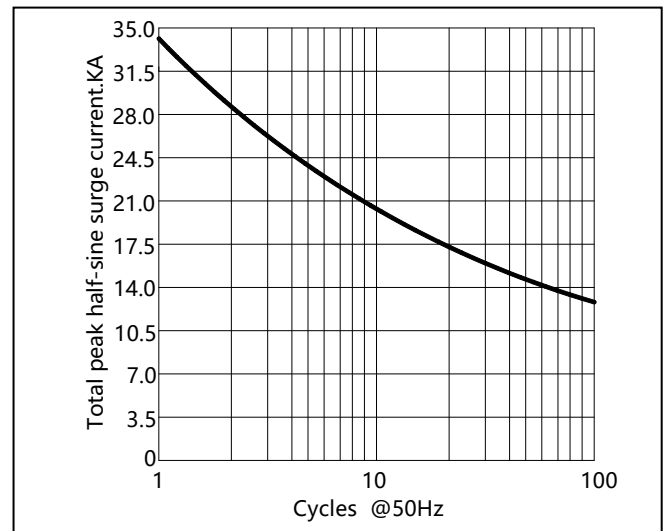


Fig4. Max Non-Repetitive Forward Surge Current

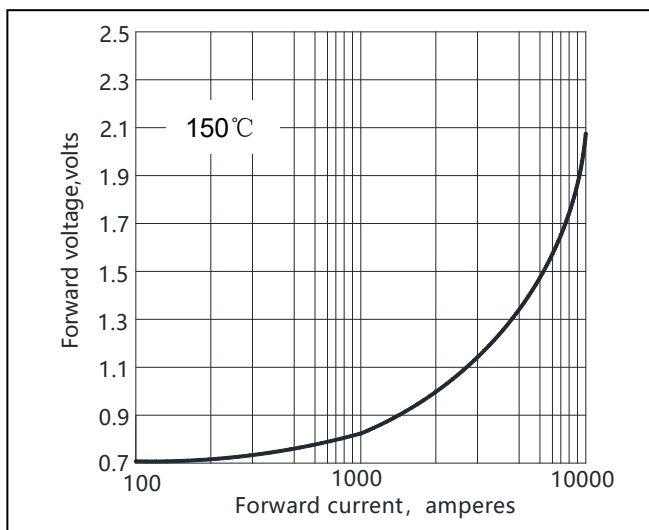


Fig5. Forward Characteristics



CASE: D9

