



Rectifier Diode Module

V_{RRM} 2000V
I_{FAV} 380A

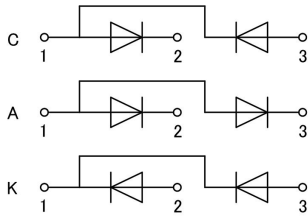
Applications

- 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
MD380C20D3H4	MD380A20D3H4	MD380K20D3H4	2000	2200	V

Maximum Ratings

Symbol	Conditions	Values	Units
I _{FAV}	Single phase ,half wave 180° conduction T _c =100℃	380	A
I _{FSM}	t=10ms T _{vj} =T _{vjM}	9500	A
i ² t	t=10ms T _{vj} =T _{vjM}	451000	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1s,I _{iso} :2mA(max)for MD...H4	4800	V
	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)for MD...H4	4000	V
T _{vj}		-40 to 150	℃
T _{stg}		-40 to 125	℃
Mt	To terminals(M8)	12±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	690	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per diode	0.104	℃/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 =1100A			1.35	V
I _{RRM}	T _{vj} =T _{vjM} V=V _{RRM}			30	mA
V _{FO}	T _{vj} =T _{vjM}			0.72	V
r _F	T _{vj} =T _{vjM}			0.44	mΩ



Performance Curves

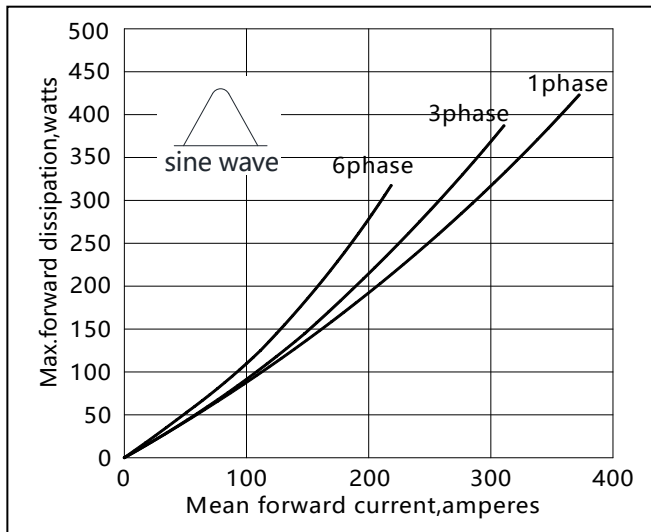


Fig1. Power dissipation

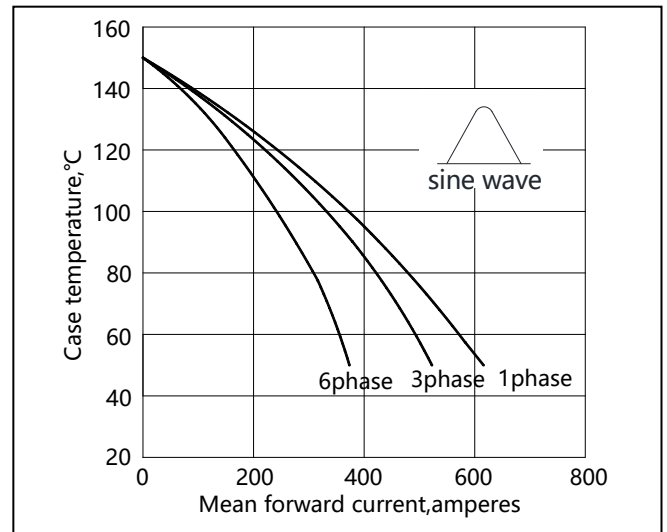


Fig2. Forward Current Derating Curve

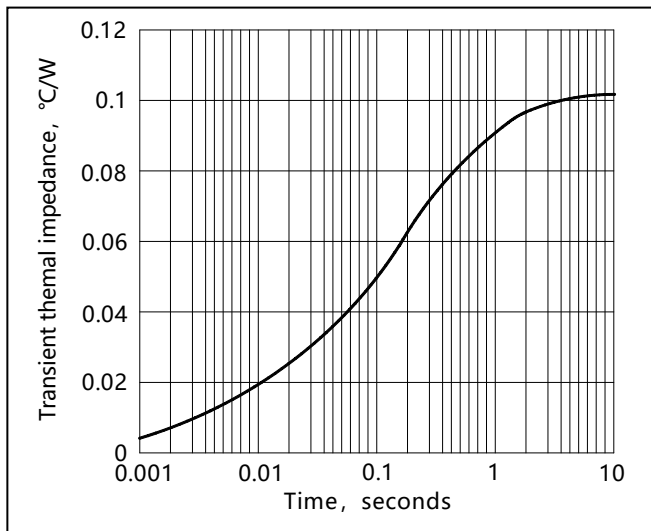


Fig3. Transient thermal impedance

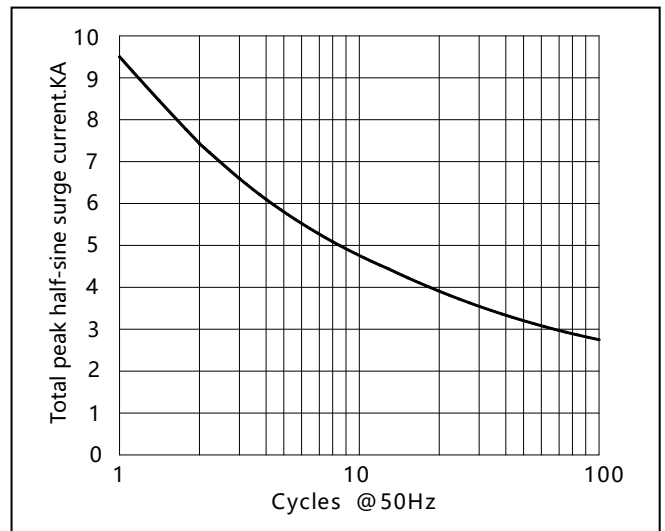


Fig4. Max Non-Repetitive Forward Surge Current

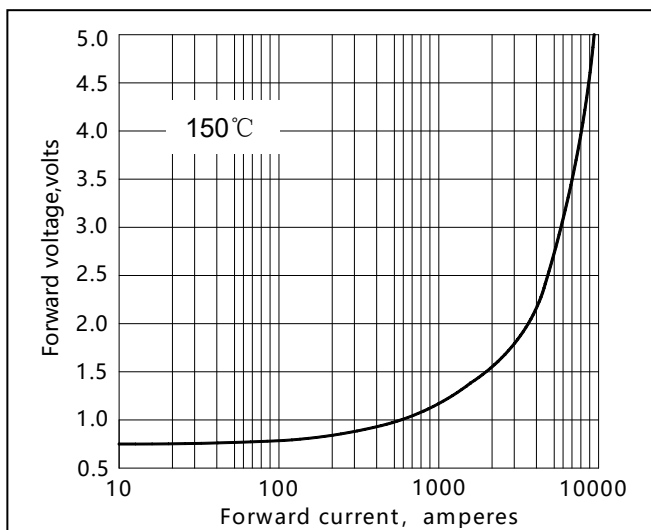


Fig5. Forward Characteristics



CASE: D3H4



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