

Rectifier Diode Module



VRRM 2200 to 2800V
IFAV 160A

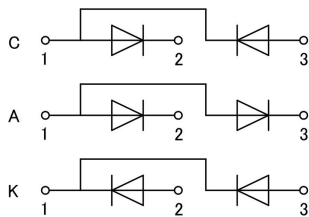
Applications

- 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
MD160C22BD2	MD160A22BD2	MD160K22BD2	2200	2400	V
MD160C24BD2	MD160A24BD2	MD160K24BD2	2400	2600	V
MD160C26BD2	MD160A26BD2	MD160K26BD2	2600	2800	V
MD160C28BD2	MD160A28BD2	MD160K28BD2	2800	3000	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	160	A
IFSM	t=10ms Tvj=TvjM	4600	A
i²t	t=10ms Tvj=TvjM	105800	A²s
Visol	a.c.50HZ;r.m.s.;1min,Iso :2mA(MAX)	3000	V
Tvj		-40 to 150	℃
Tstg		-40 to 125	℃
Mt	To terminals(M6)	6±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	320	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per diode	0.23	℃/W
Rth(c-s)	per diode	0.08	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25℃ IF =480A			1.4	V
IRRM	Tvj=TvjM V=VRRM			15	mA
VFO	Tvj=TvjM			0.84	V
rF	Tvj=TvjM			1.28	mΩ



Performance Curves

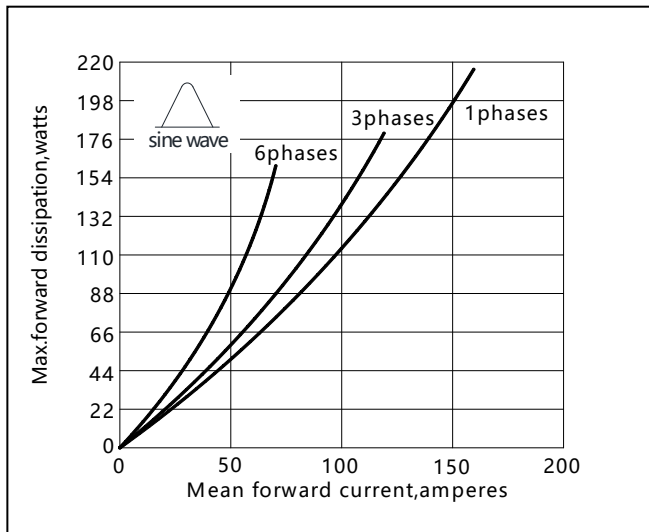


Fig1. Power dissipation

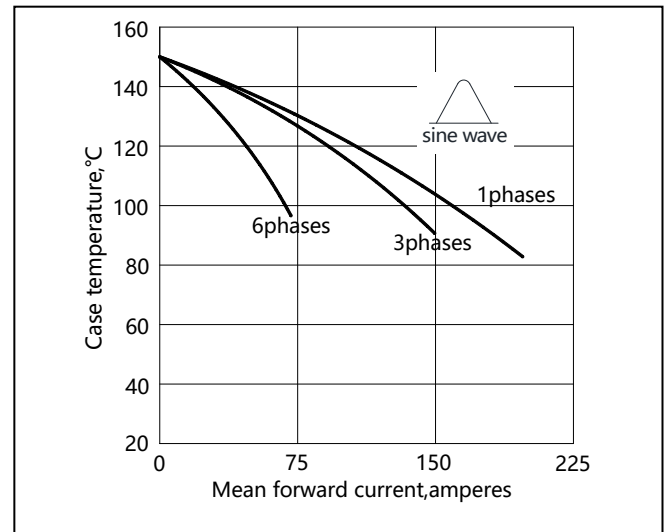


Fig2. Forward Current Derating Curve

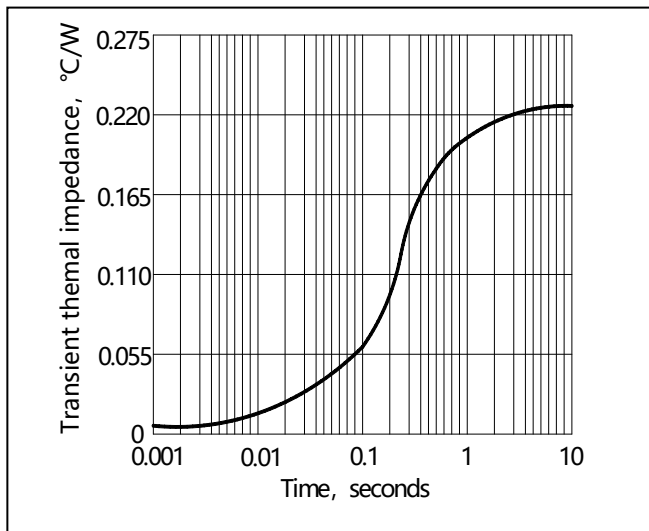


Fig3. Transient thermal impedance

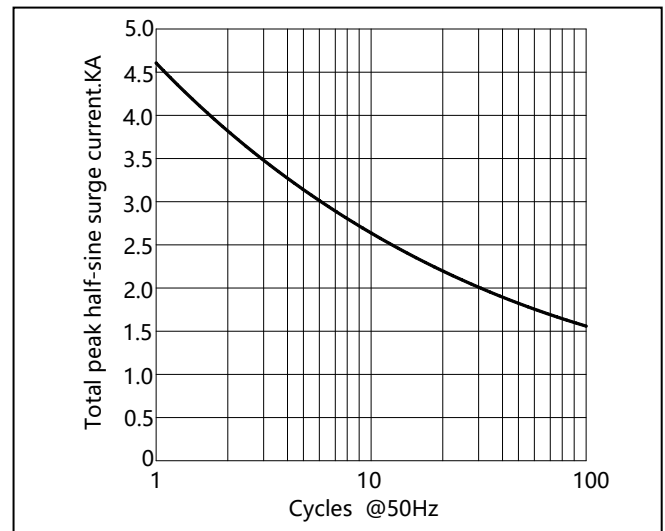


Fig4. Max Non-Repetitive Forward Surge Current

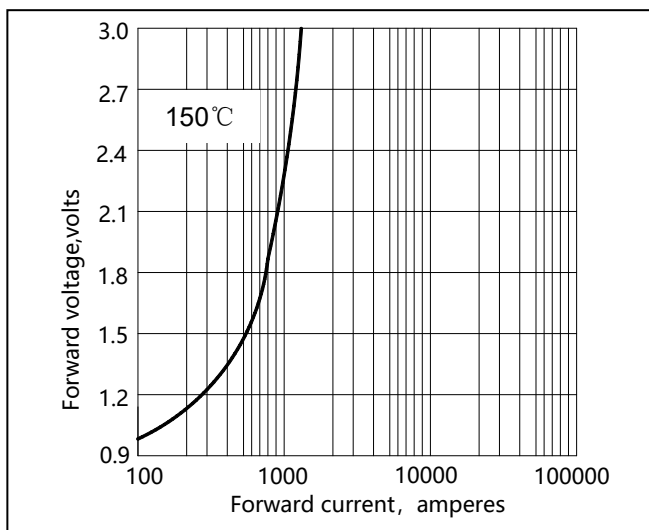


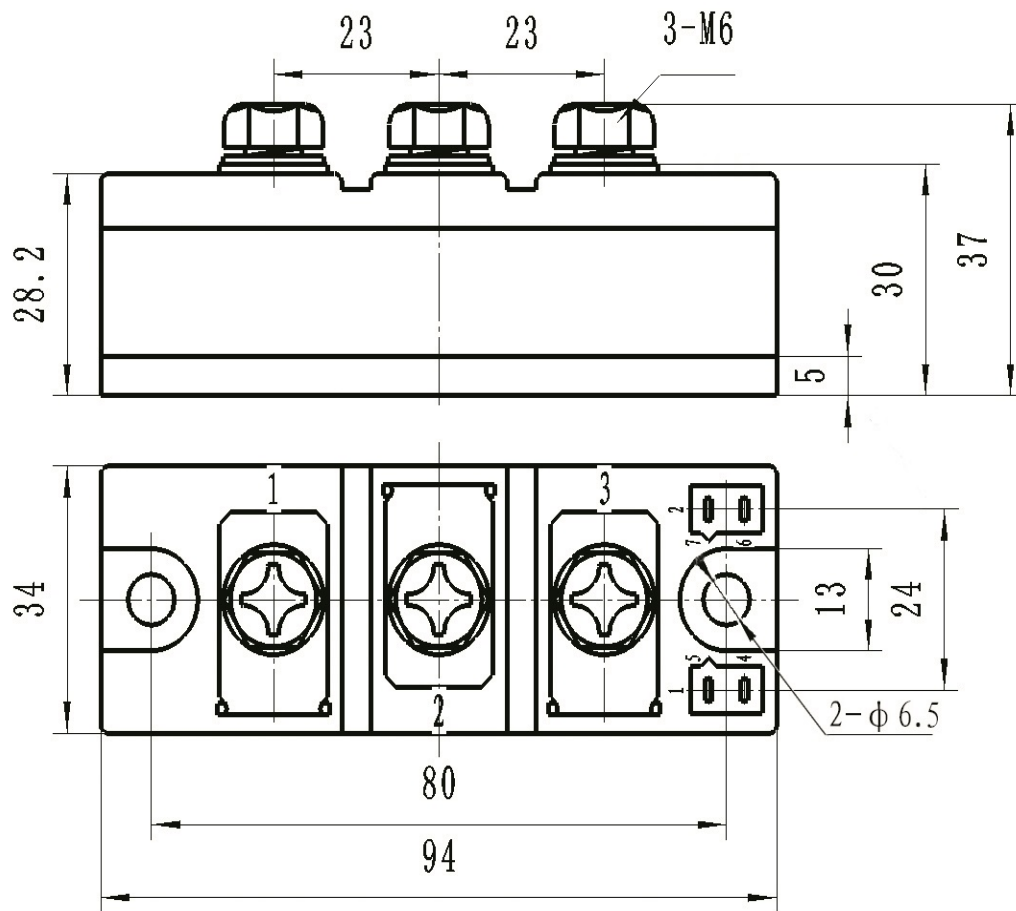
Fig5. Forward Characteristics



MD160C(A/K)-BD2

Package Outline Information

CASE: BD2



Dimensions in mm

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