

Rectifier Diode Module

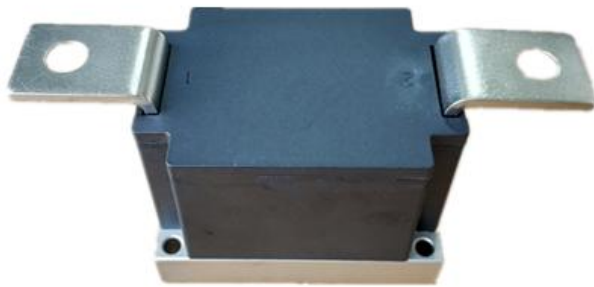
VRRM 1200 to 1800V
IFAV 1200A

Applications

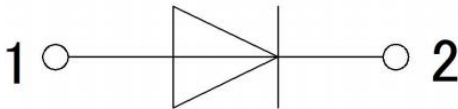
- Bridge Circuits
- Industry converter
- Battery Supplies

Features

- International standard package
- High Surge Capability
- Simple Mounting



Circuit



Blocking Characteristics

TYPE	VRRM	VRSM	Units
MD1200U12I6	1200	1300	V
MD1200U14I6	1400	1500	V
MD1200U16I6	1600	1760	V
MD1200U18I6	1800	2000	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	1200	A
IFSM	t=10ms Tvj=TvjM	30000	A
i ² t	t=10ms Tvj=TvjM	4500000	A ² s
Visol	a.c.50HZ;r.m.s.;1min,Iiso :2mA(max)	3000	V
Tvj		-40 to 150	℃
Tstg		-40 to 125	℃
Mt	To terminals(M12)	14±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	2700	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per diode	0.042	℃/W
Rth(c-s)	per diode	0.020	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25℃ IF =3000A			1.19	V
IRRM	Tvj=TvjM V=VRRM			35	mA
VFO	Tvj=TvjM			0.66	V
rF	Tvj=TvjM			0.1	mΩ

Performance Curves

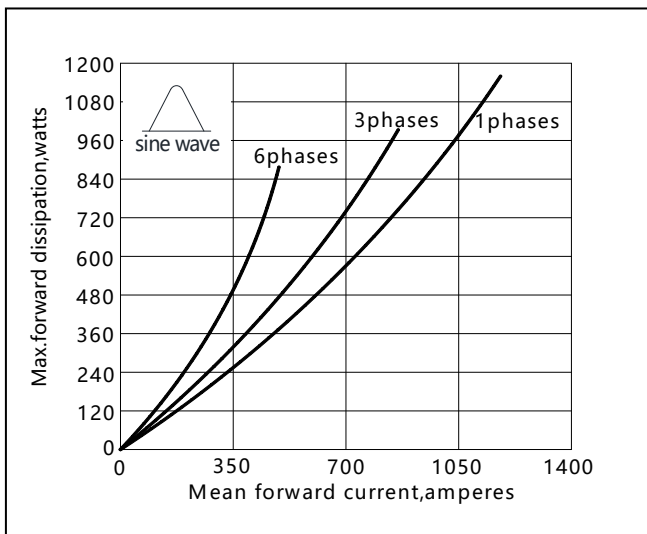


Fig1. Power dissipation

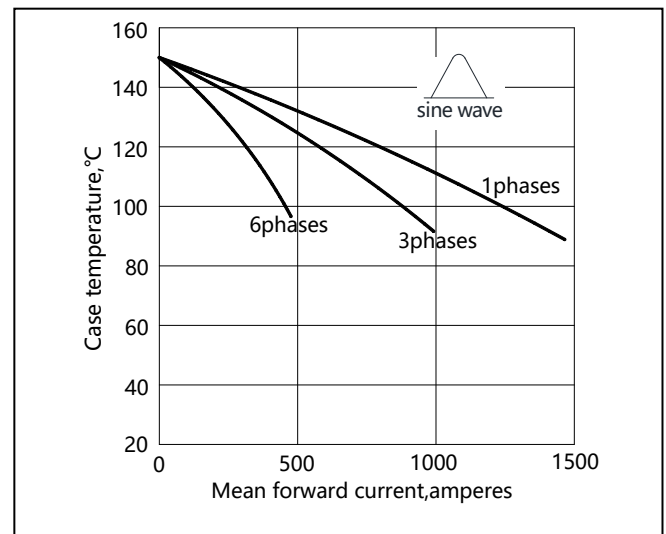


Fig2. Forward Current Derating Curve

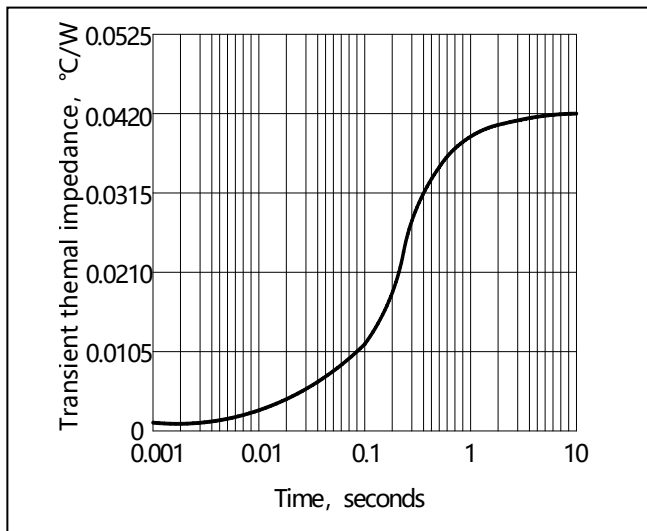


Fig3. Transient thermal impedance

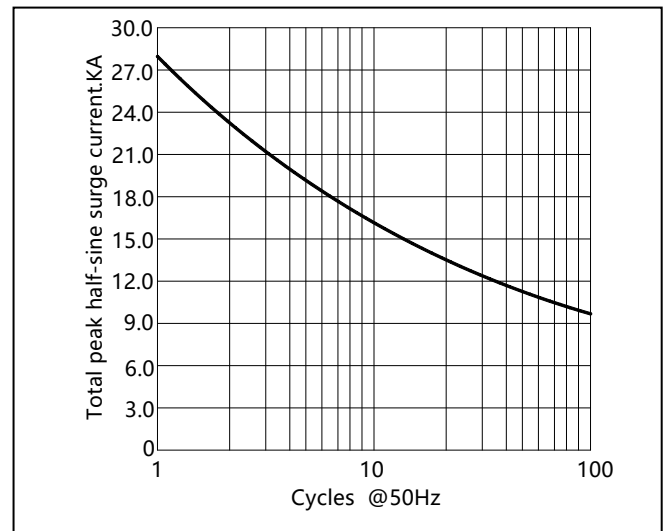


Fig4. Max Non-Repetitive Forward Surge Current

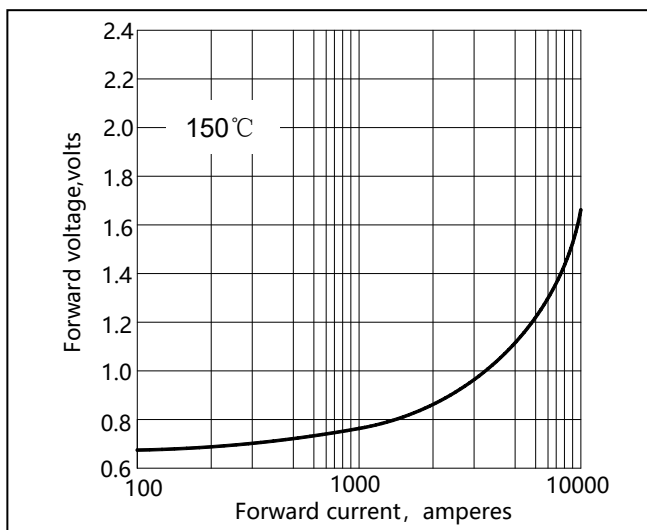
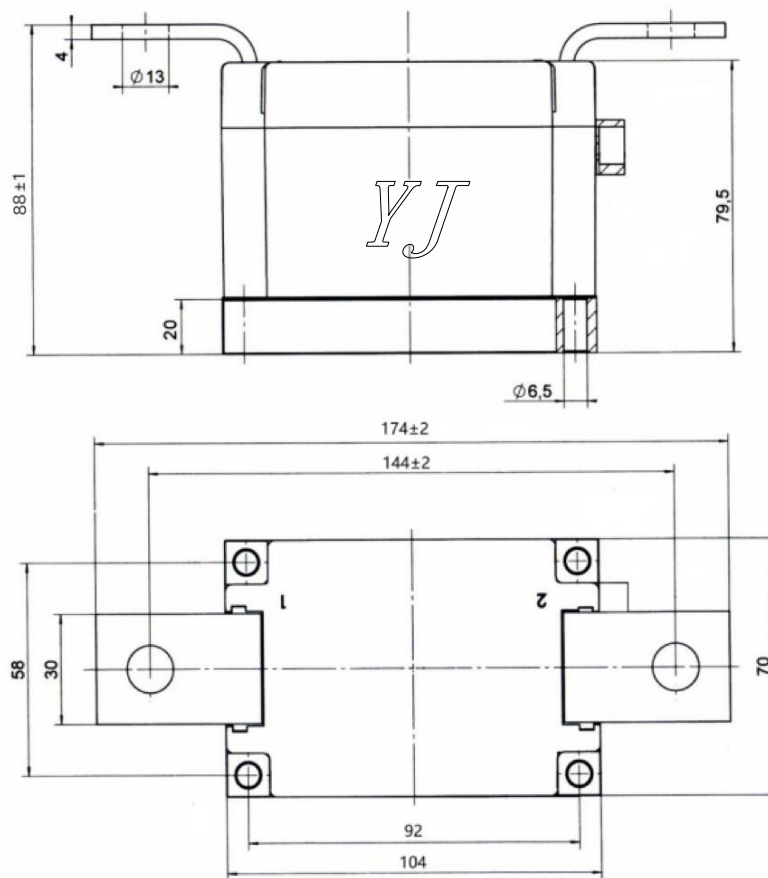


Fig5. Forward Characteristics

Package Outline Information

CASE: I6



Dimensions in mm

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



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