



Rectifier Diode Module

VRRM 1200 to 2000V
IFAV 500A

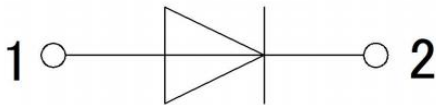
Applications

- Bridge Circuits
- Industry converter
- Battery Supplies

Features

- International standard package
- High Surge Capability
- Simple Mounting

Circuit



Blocking Characteristics

TYPE	VRRM	VRSM	Units
MD500U12BI5	1200	1300	V
MD500U14BI5	1400	1500	V
MD500U16BI5	1600	1760	V
MD500U18BI5	1800	2000	V
MD500U20BI5	2000	2200	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	500	A
IFSM	t=10ms Tvj=TvjM	16000	A
i ² t	t=10ms Tvj=TvjM	1280000	A ² s
Visol	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)	2500	V
Tvj		-40 to 150	℃
Tstg		-40 to 125	℃
Mt	To terminals(M10)	12±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	780	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	per diode	0.082	℃/W
Rth(c-s)	per diode	0.04	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ IF=1500A			1.3	V
I _{RRM}	Tvj=TvjM V=VRRM			20	mA
V _{FO}	Tvj=TvjM			0.75	V
r _F	Tvj=TvjM			0.3	mΩ

Performance Curves

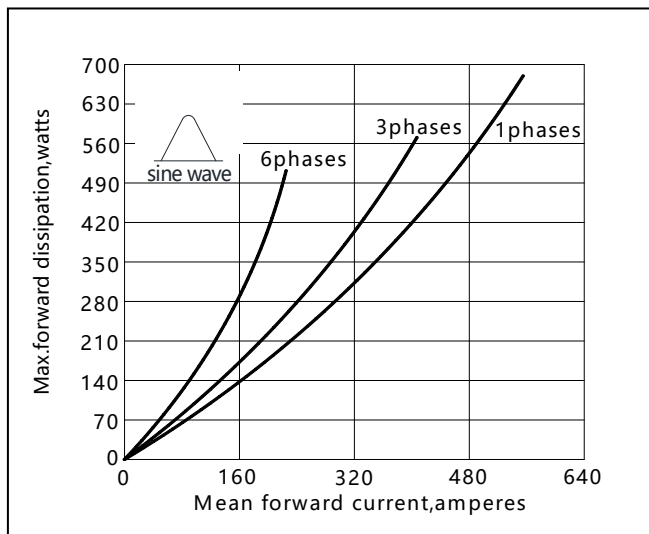


Fig1. Power dissipation

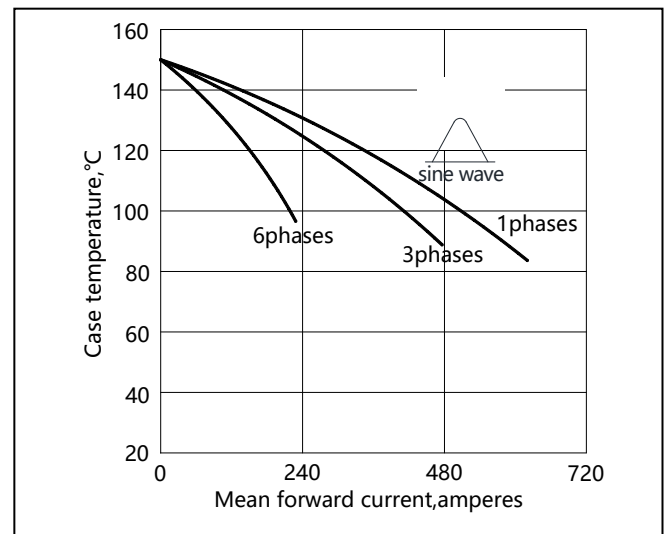


Fig2. Forward Current Derating Curve

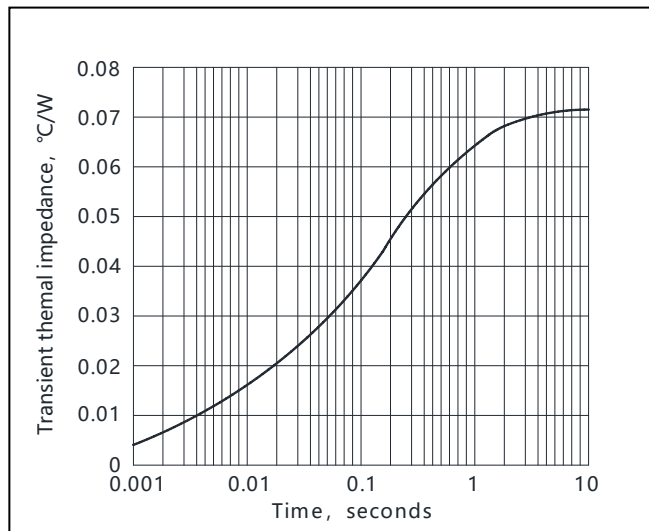


Fig3. Transient thermal impedance

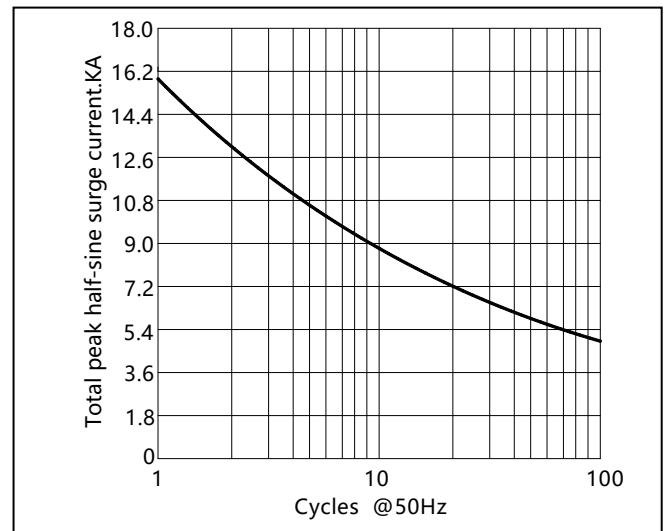


Fig4. Max Non-Repetitive Forward Surge Current

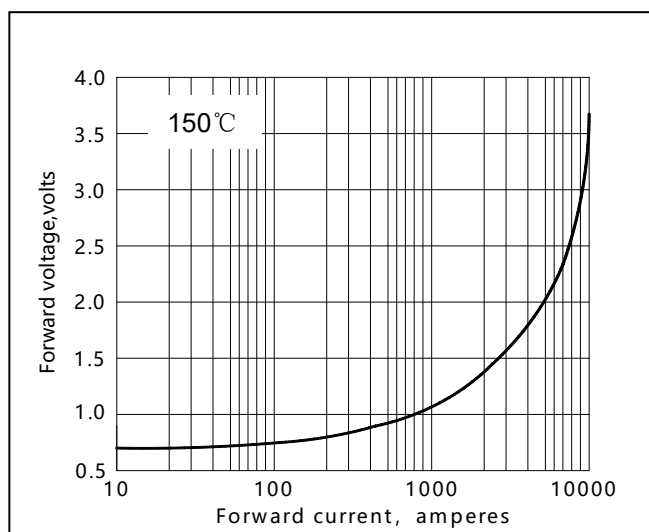
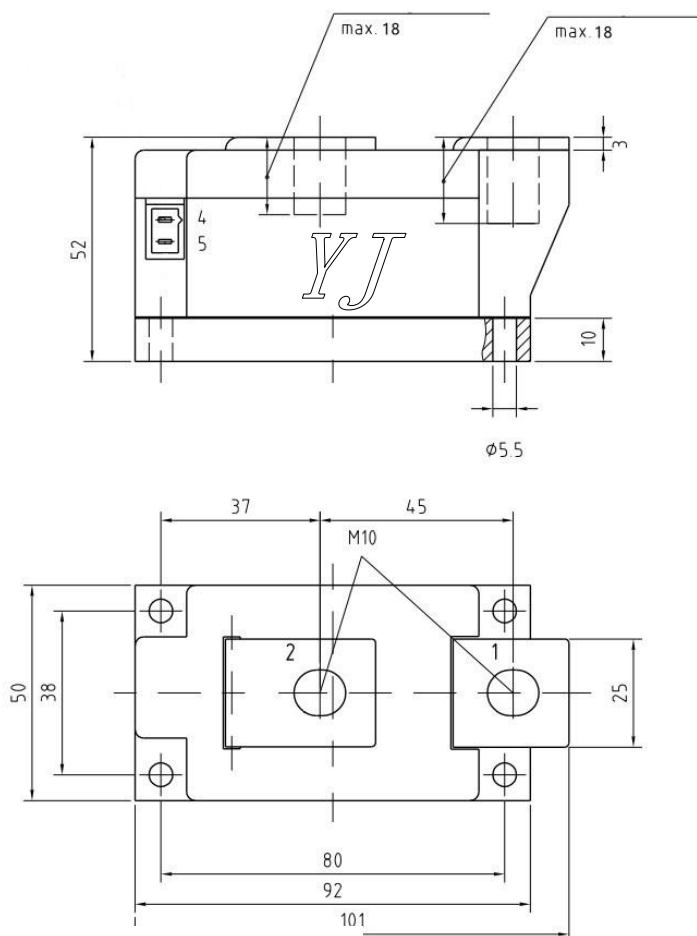


Fig5. Forward Characteristics

CASE: BI5



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



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