

Rectifier Diode Module

VRRM 3800 to 4400V
IFAV 950A

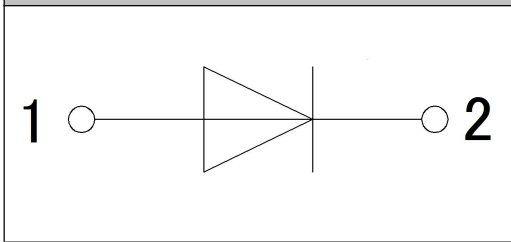
Applications

- Bridge Circuits
- Industry converter
- Battery Supplies

Features

- International standard package
- High Surge Capability
- Simple Mounting

Circuit



Blocking Characteristics

TYPE	VRRM	V _{RSM}	Units
MD950U38I6	3800	4000	V
MD950U40I6	4000	4200	V
MD950U42I6	4200	4400	V
MD950U44I6	4400	4600	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction T _c =100°C	950	A
IFSM	t=10ms T _{vj} =T _{vjm}	29000	A
i ² t	t=10ms T _{vj} =T _{vjm}	4205000	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)	5000	V
T _{vjm}		160	°C
T _{stg}		-40 to 150	°C
Mt	To terminals(M12)	12±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	2700	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per diode	0.042	°C/W
R _{th(c-s)}	per diode	0.010	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25°C I _F =3000A			1.8	V
I _{RRM}	T _{vj} =T _{vjm} V=VRRM			50	mA
V _{FO}	T _{vj} =T _{vjm}			0.85	V
r _F	T _{vj} =T _{vjm}			0.28	mΩ

Performance Curves

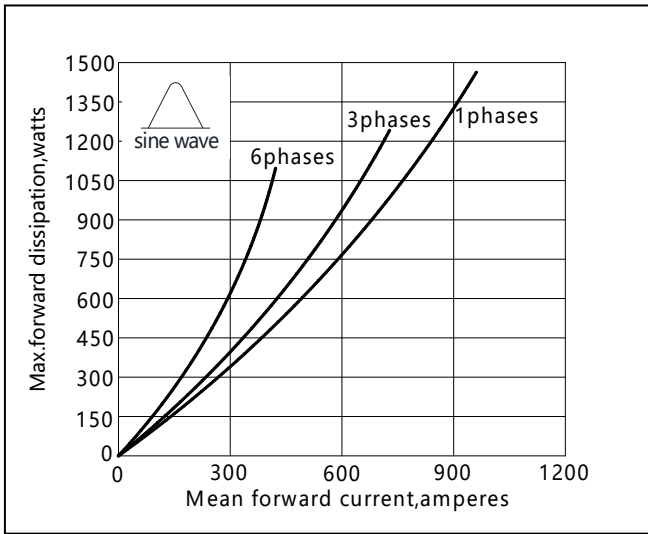


Fig1. Power dissipation

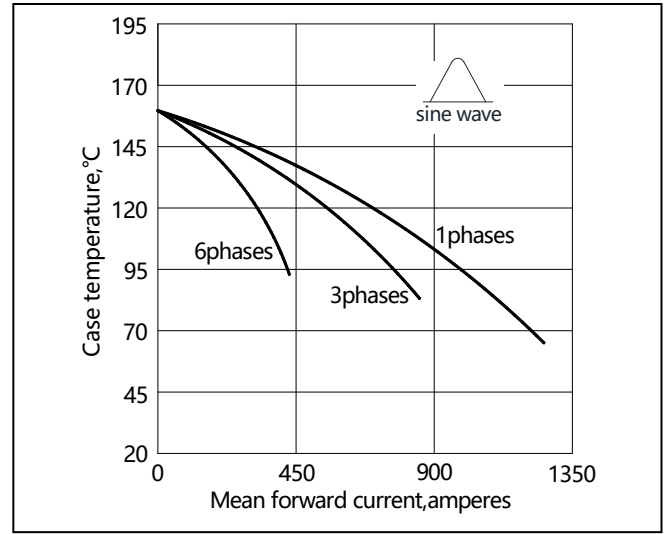


Fig2. Forward Current Derating Curve

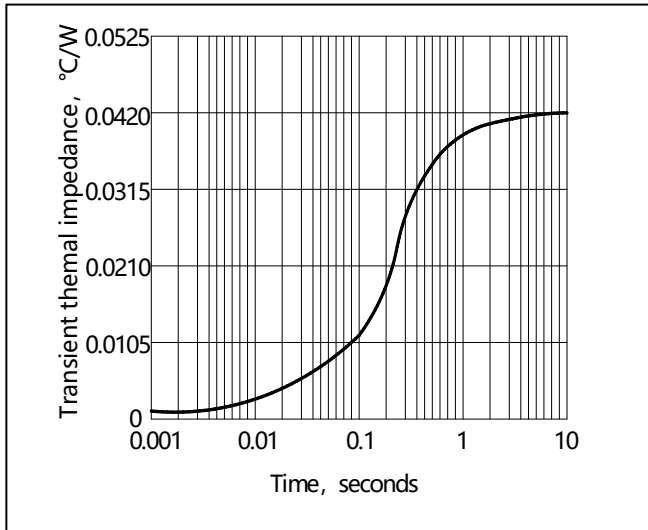


Fig3. Transient thermal impedance

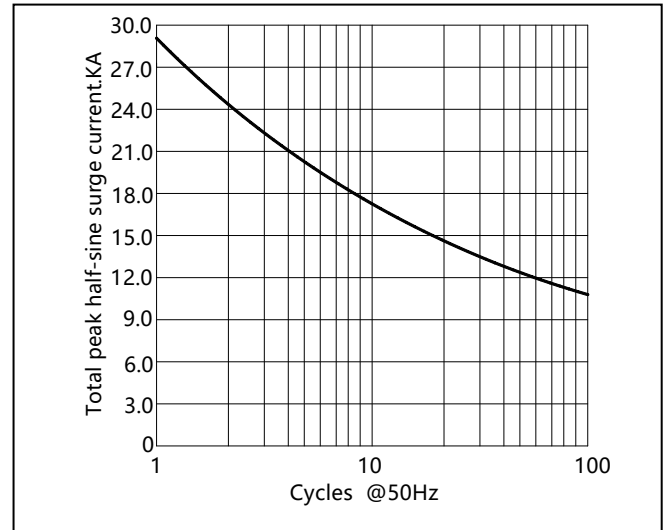


Fig4. Max Non-Repetitive Forward Surge Current

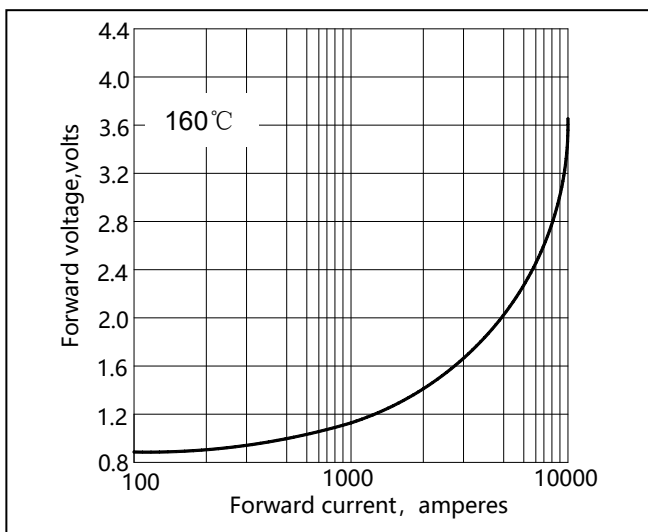
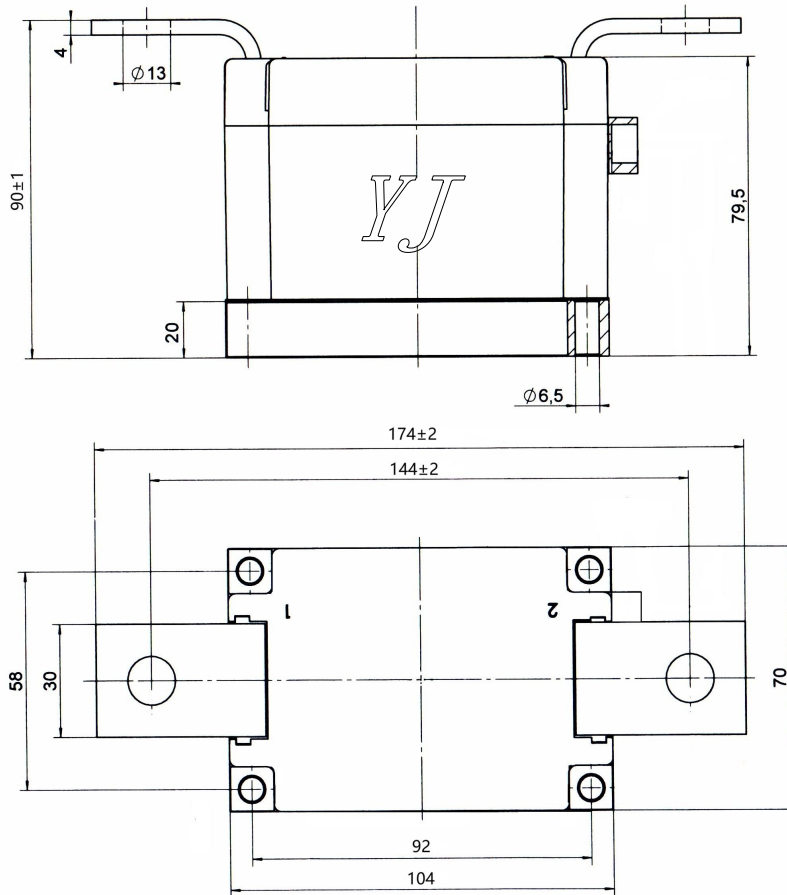


Fig5. Forward Characteristics

Package Outline Information

CASE: I6



Dimensions in mm

Unmarked dimensional tolerance: ± 0.5 mm