

Rectifier Diode Module

VRRM 1200 to 1800V
IFAV 1050A

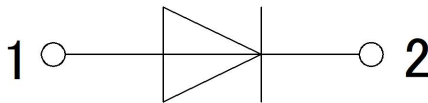
Applications

- Bridge Circuits
- Industry converter
- Battery Supplies

Features

- International standard package
- High Surge Capability
- Simple Mounting

Circuit



Blocking Characteristics

TYPE			VRRM	VRSM	Units
MD1050U12I6	MD1050U12I6	MD1050U12I6	1200	1300	V
MD1050U14I6	MD1050U14I6	MD1050U14I6	1400	1500	V
MD1050U16I6	MD1050U16I6	MD1050U16I6	1600	1760	V
MD1050U18I6	MD1050U18I6	MD1050U18I6	1800	2000	V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=100℃	1050	A
IFSM	t=10ms Tvj=TVjM	28000	A
i ² t	t=10ms Tvj=TVjM	3920000	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min,I _{iso} :2mA(max)	3000	V
Tvj		-40 to 150	℃
T _{stg}		-40 to 125	℃
Mt	To terminals(M12)	13±15%	Nm
Ms	To heatsink(M6)	6±15%	Nm
Weight	Module (Approximately)	2680	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	per diode	0.045	℃/W
R _{th(c-s)}	per diode	0.010	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25℃ IF =3000A			1.35	V
I _{RRM}	Tvj=TVjM V=VRRM			20	mA
V _{FO}	Tvj=TVjM			0.8	V
r _F	Tvj=TVjM			0.1	mΩ

Performance Curves

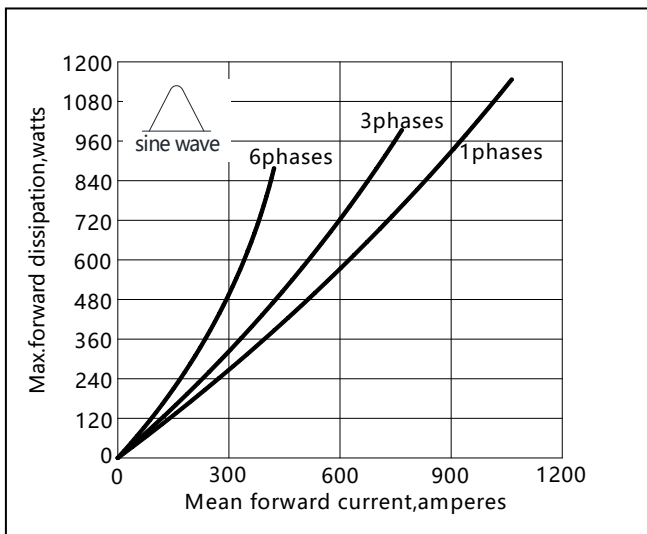


Fig1. Power dissipation

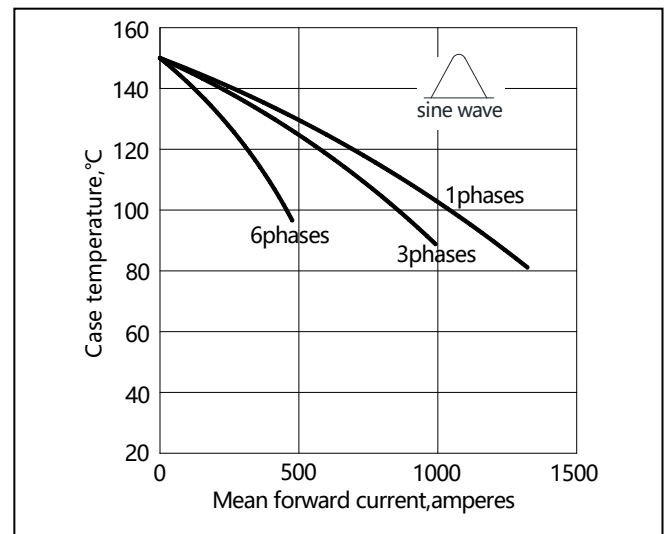


Fig2. Forward Current Derating Curve

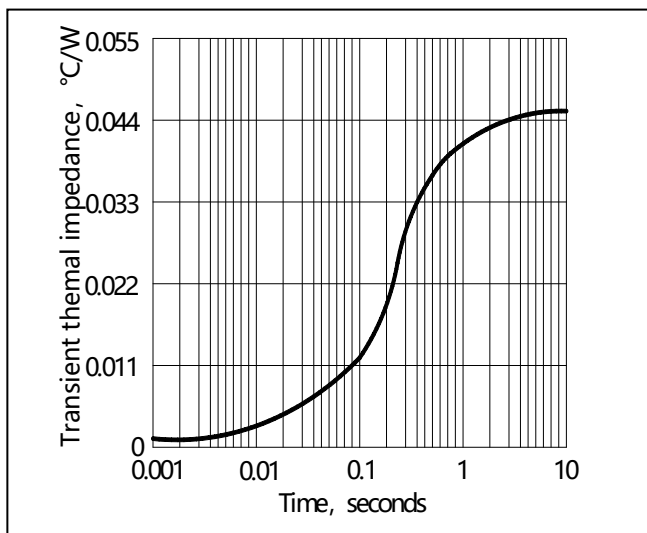


Fig3. Transient thermal impedance

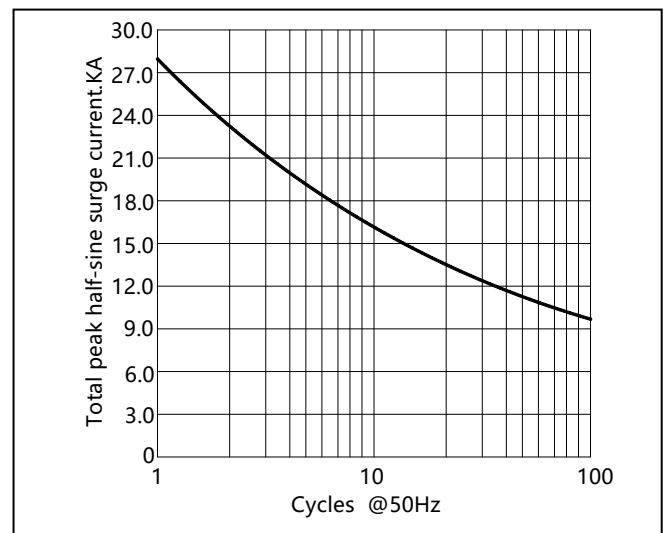


Fig4. Max Non-Repetitive Forward Surge Current

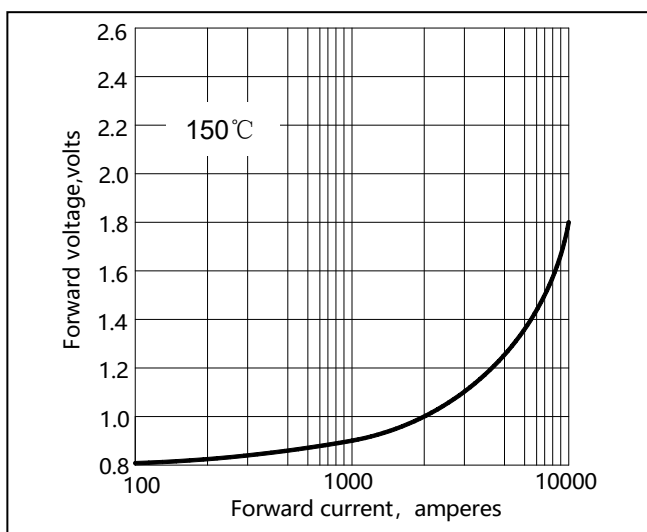
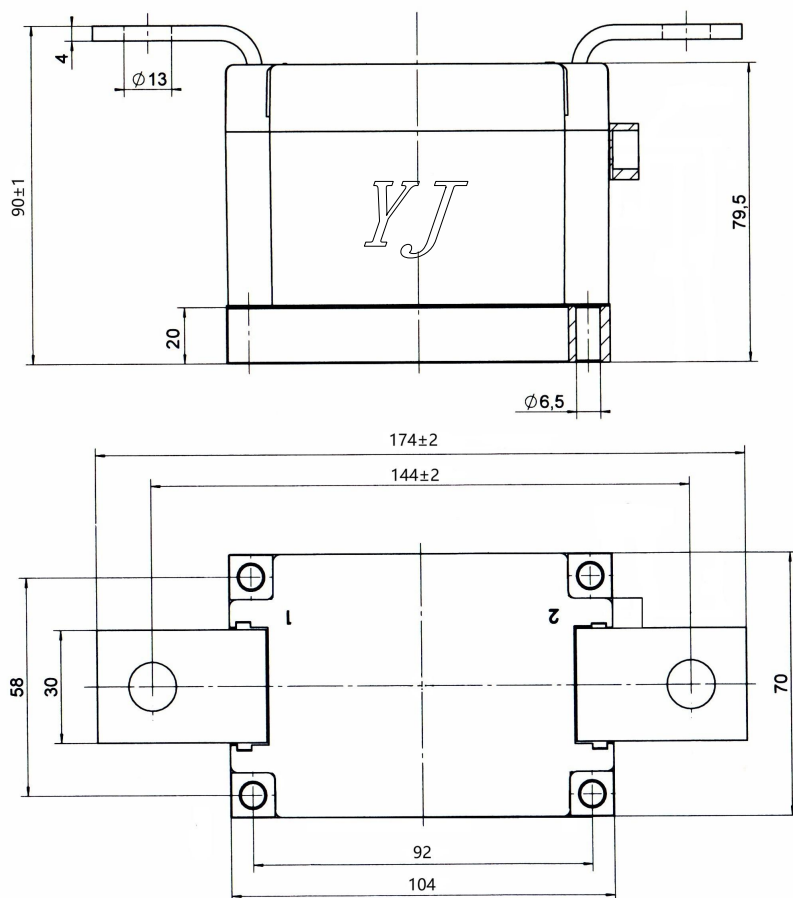


Fig5. Forward Characteristics

Package Outline Information

CASE: I6



Dimensions in mm

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