

Rectifier Diode Modules



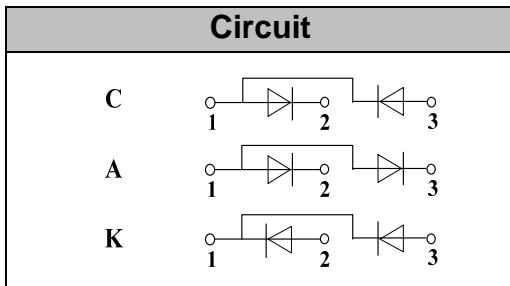
VRRM 800 to 1800V
IFAV 400 A

Applications

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

Features

- Blocking voltage: 800 to 1800V
- Heat transfer through aluminum oxide ceramic isolated metal baseplate



Module Type

TYPE			VRRM	VRSM
MD400C08D4	MD400A08D4	MD400K08D4	800V	900V
MD400C12D4	MD400A12D4	MD400K12D4	1200V	1300V
MD400C16D4	MD400A16D4	MD400K16D4	1600V	1700V
MD400C18D4	MD400A18D4	MD400K18D4	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=85°C	400	A
IFSM	t=10mS Tvj =45°C	15000	A
i ² t	t=10mS Tvj =45°C	1125000	A ² s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to 150	°C
Tstg		-40 to 125	°C
Mt	To terminals(M10)	9±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	1509	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.05	°C/W
Rth(c-s)	Module	0.02	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°C IF =1200A	—	—	1.8	V
IRD	Tvj=TvjM VRD=VRRM	—	—	20	mA

Performance Curves

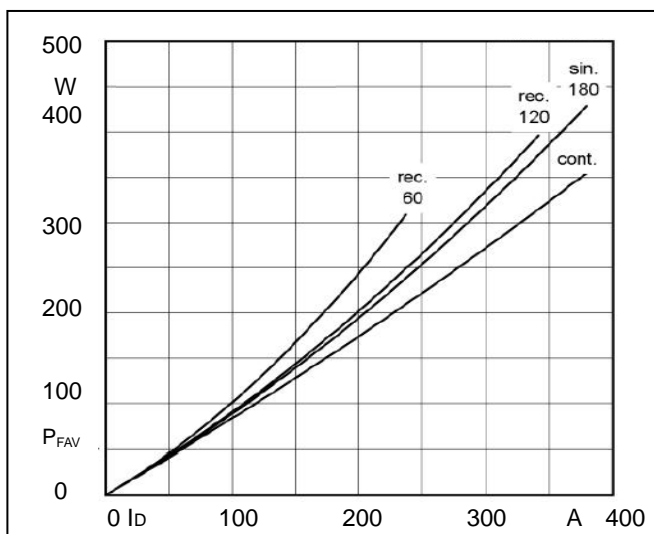


Fig1. Power dissipation

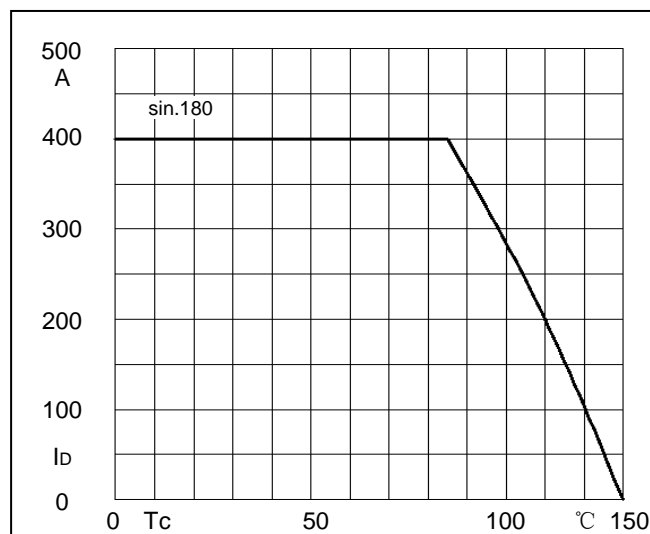


Fig2. Forward Current Derating Curve

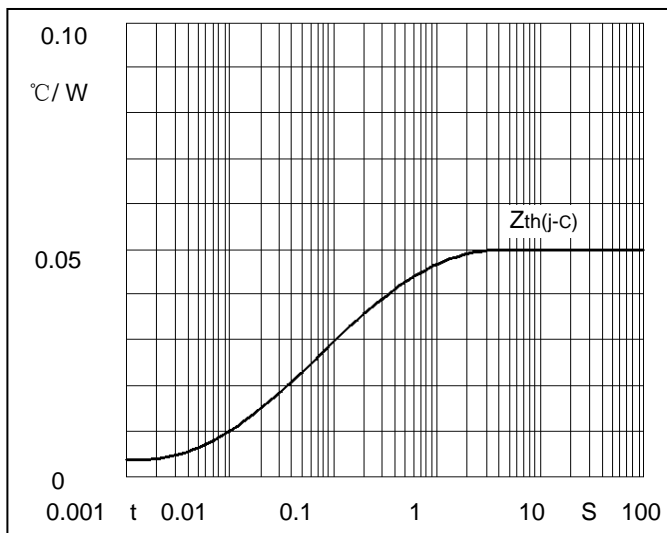


Fig3. Transient thermal impedance

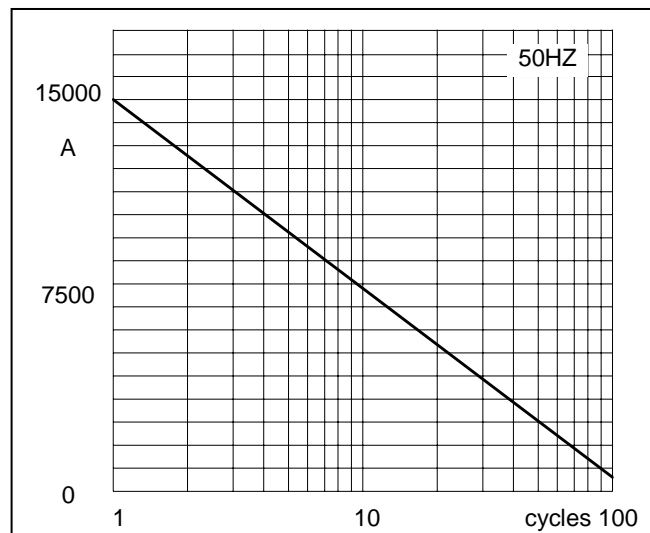


Fig4. Max Non-Repetitive Forward Surge Current

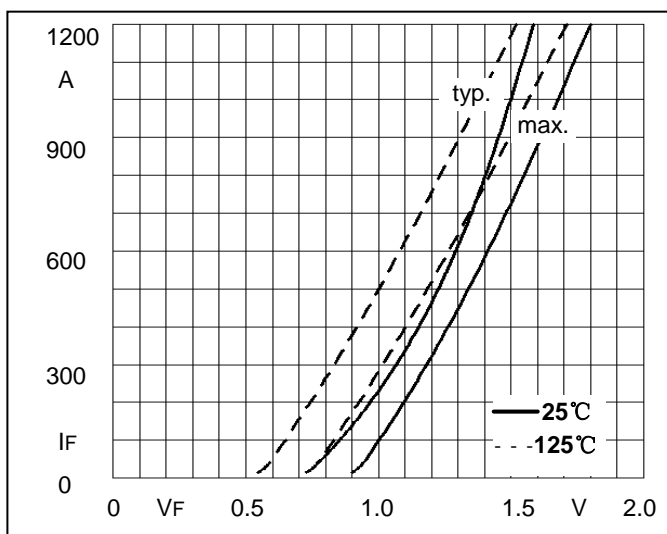
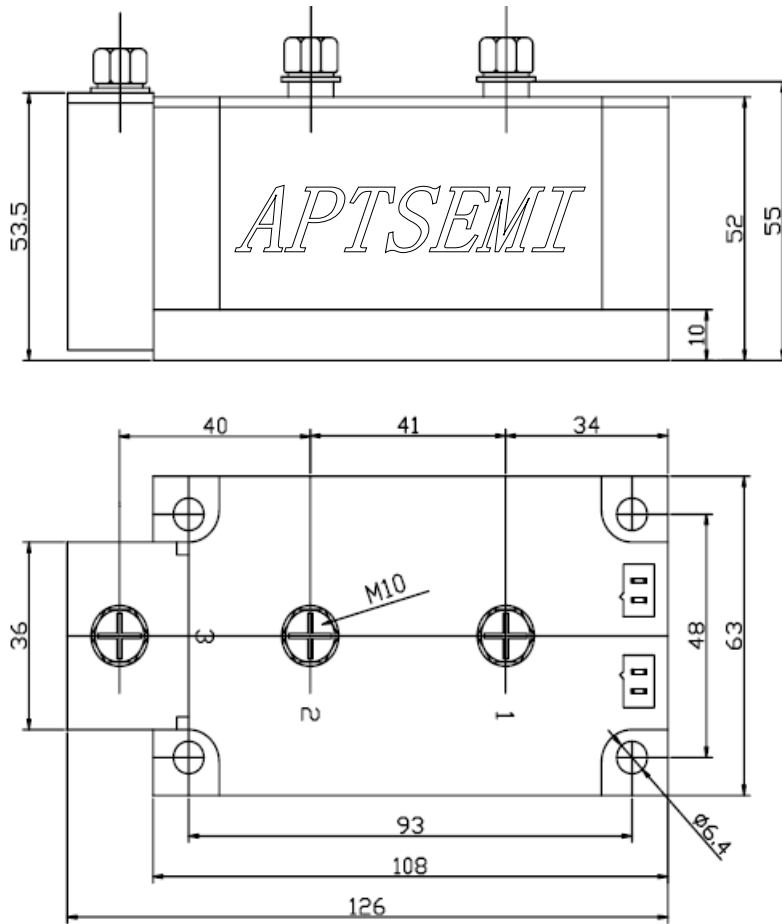


Fig5. Forward Characteristics

Package Outline Information

CASE: D4



Dimensions in mm