

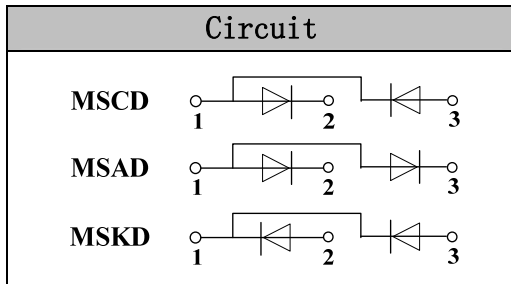


## Glass Passivated Rectifier Diode Modules

**VRRM** 800 to 1800V  
**IFAV** 200 Amp

### 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
- Glass passivated chip
- UL E243882 approved

### Module Type

TYPE			VRRM	V <sub>RSM</sub>
MSCD200-08	MSAD200-08	MSKD200-08	800V	900V
MSCD200-12	MSAD200-12	MSKD200-12	1200V	1300V
MSCD200-16	MSAD200-16	MSKD200-16	1600V	1700V
MSCD200-18	MSAD200-18	MSKD200-18	1800V	1900V

### Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=95°C	200	A
IF(RMS)	Single phase ,half wave 180° conduction Tc=102°C	240	A
IFSM	t=10mS Tvj =45°C	6800	A
i <sup>2</sup> t	t=10mS Tvj =45°C	231200	A <sup>2</sup> s
V <sub>isol</sub>	a.c.50HZ;r.m.s.;1min	3000	V
T <sub>vj</sub>		-40 to 150	°C
T <sub>stg</sub>		-40 to 125	°C
Mt	To terminals(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	160	g

### Thermal Characteristics

Symbol	Conditions	Values	Units
R <sub>th(j-c)</sub>	Per diode	0.18	°C/W
R <sub>th(c-s)</sub>	Module	0.05	°C/W

### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V <sub>FM</sub>	T=25°C IF =300A	—	1.18	1.30	V
IR <sub>D</sub>	Tvj=150°C VRD=VRRM	—	—	9	mA

## Performance Curves

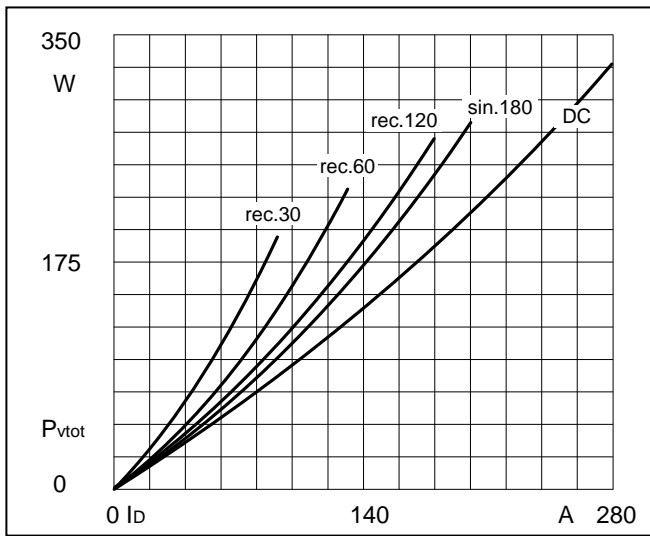


Fig1. Power dissipation

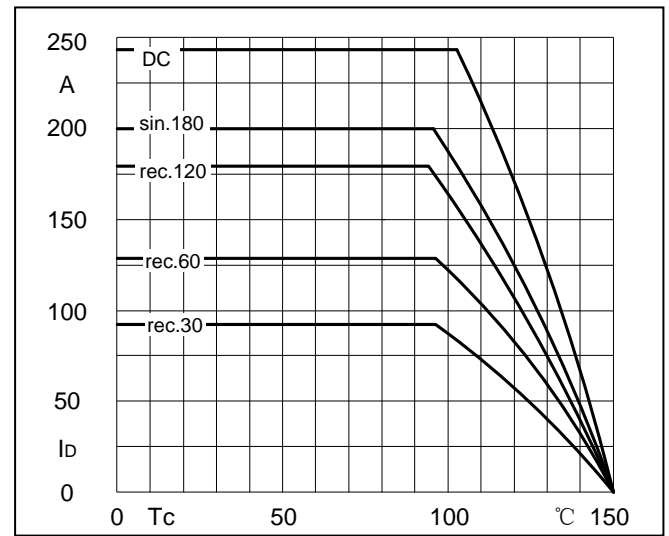


Fig2. Forward Current Derating Curve

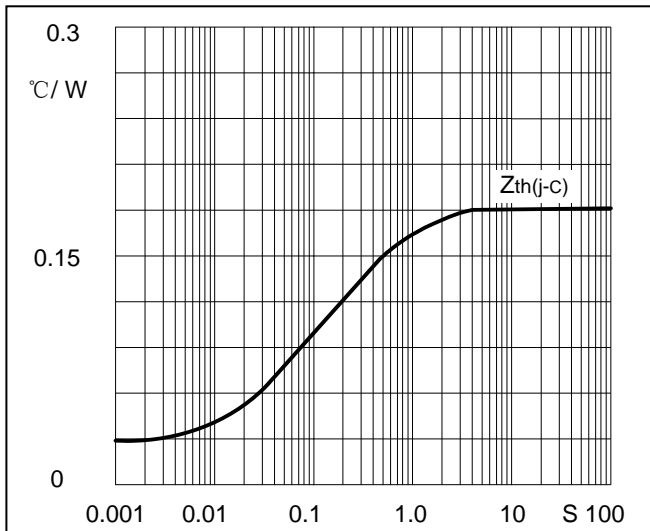


Fig3. Transient thermal impedance

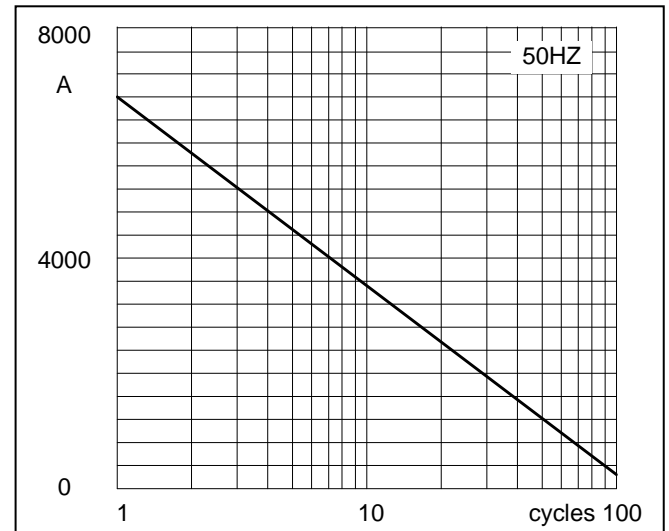


Fig4. Max Non-Repetitive Forward Surge Current

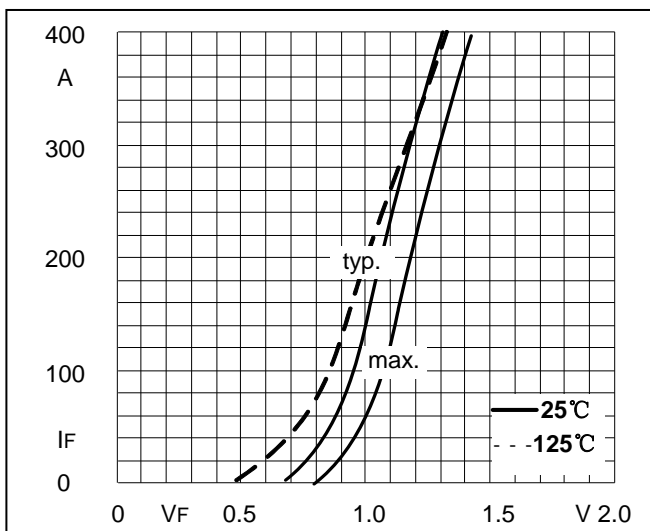


Fig5. Forward Characteristics

## Package Outline Information

