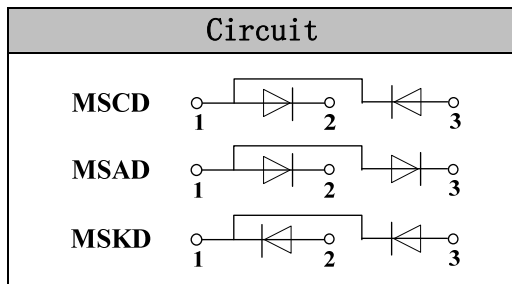


Glass Passivated Rectifier Diode Modules

VRRM 800 to 1800V
IFAV 120 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 DBC ceramic isolated metal baseplate
- Glass passivated chip
- UL E243882 approved

Module Type

TYPE			VRRM	VRSM
MSCD120-08	MSAD120-08	MSKD120-08	800V	900V
MSCD120-12	MSAD120-12	MSKD120-12	1200V	1300V
MSCD120-16	MSAD120-16	MSKD120-16	1600V	1700V
MSCD120-18	MSAD120-18	MSKD120-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=106°C	120	A
IF(RMS)	Single phase ,half wave 180° conduction Tc=97°C	180	A
IFSM	t=10mS Tvj =45°C	2800	A
i ² t	t=10mS Tvj =45°C	39200	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min	3000	V
T _{vj}		-40 to +150	°C
T _{stg}		-40 to +125	°C
Mt	To terminals(M5)	3 ± 15%	Nm
Ms	To heatsink(M6)	5 ± 15%	Nm
Weight	Module (Approximately)	100	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	0.26	°C/W
R _{th(c-s)}	Module	0.1	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25°C I _F =300A	—	1.22	1.43	V
I _{RD}	T _{vj} =150°C V _{RD} =V _{RRM}	—	—	6	mA

Performance Curves

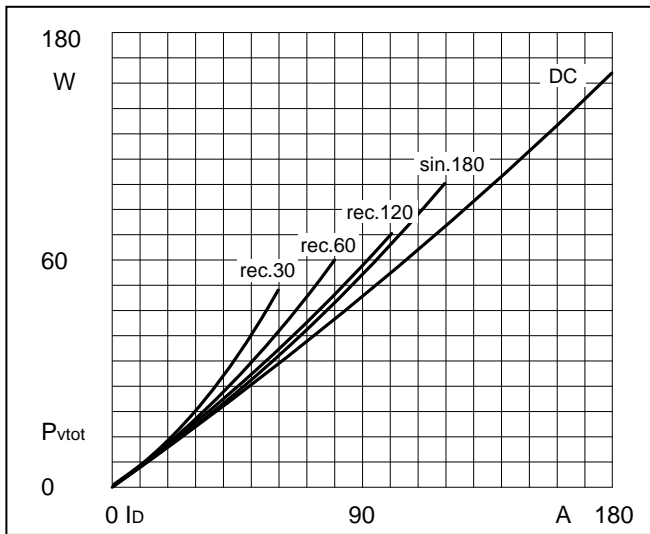


Fig1. Power dissipation

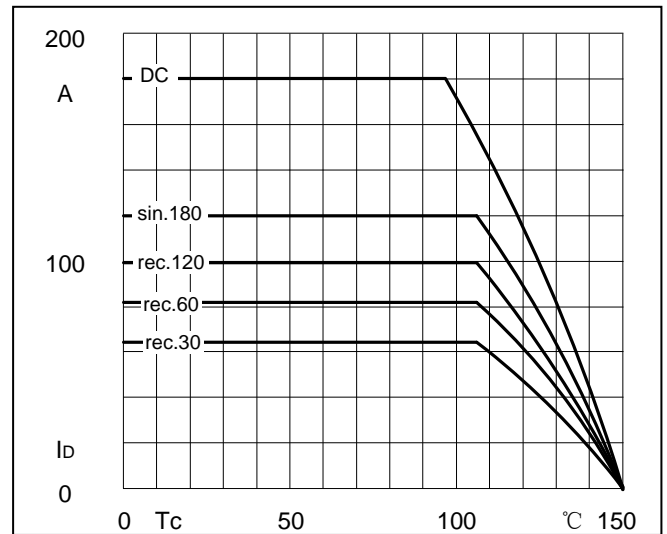


Fig2. Forward Current Derating Curve

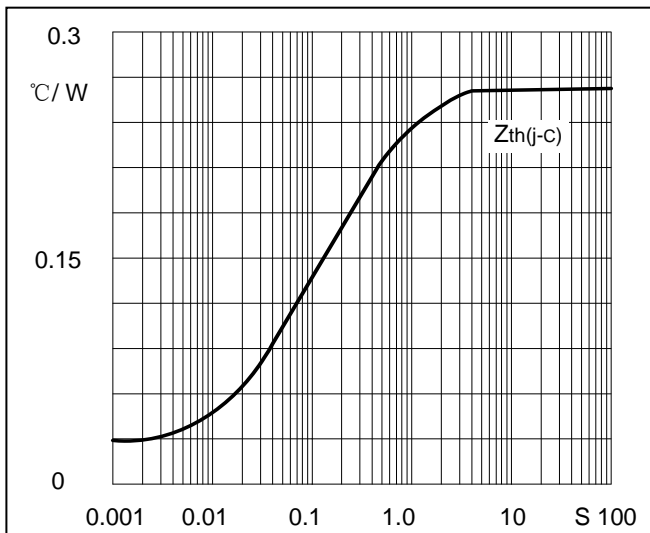


Fig3. Transient thermal impedance

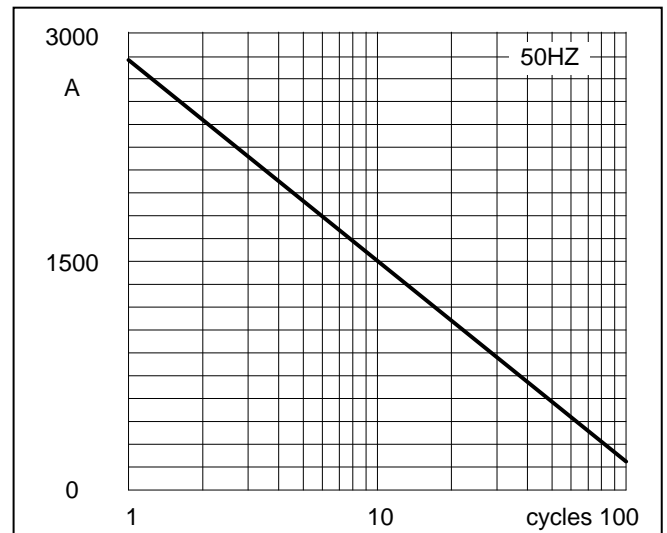


Fig4. Max Non-Repetitive Forward Surge Current

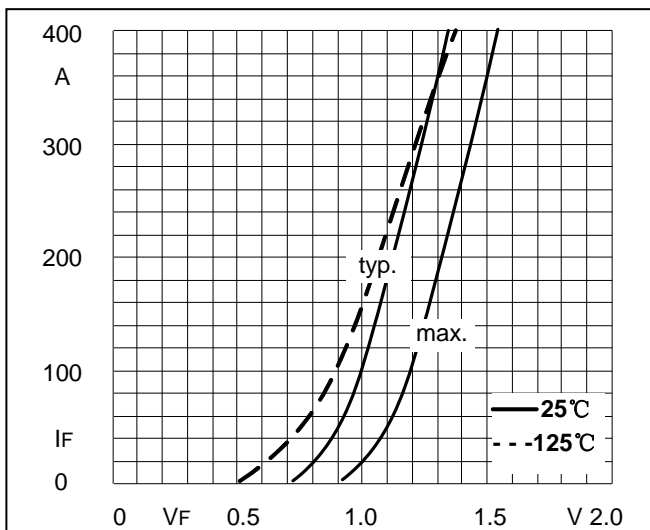


Fig5. Forward Characteristics

Package Outline Information

