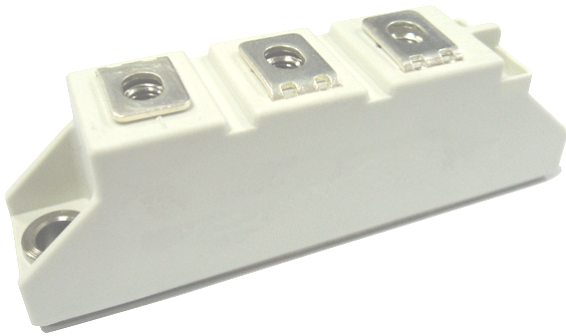




Glass Passivated Rectifier Diode Modules

VRRM 800 to 1800V

IFAV 100 Amp

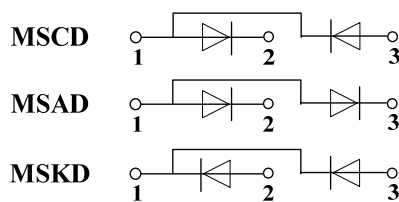
Applications

- 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

Circuit



Module Type

TYPE			VRRM	VRSRM
MSCD100-08	MSAD100-08	MSKD100-08	800V	900V
MSCD100-12	MSAD100-12	MSKD100-12	1200V	1300V
MSCD100-16	MSAD100-16	MSKD100-16	1600V	1700V
MSCD100-18	MSAD100-18	MSKD100-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=109°C	100	A
IF(RMS)	Single phase ,half wave 180° conduction Tc=97°C	150	A
IFSM	t=10mS Tvj =45°C	2500	A
i ² t	t=10mS Tvj =45°C	31250	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(M5)	3±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	100	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.35	°C/W
Rth(c-s)	Module	0.1	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°C IF =300A	—	1.22	1.35	V
IRD	Tvj=150°C VRD=VRRM	—	—	5	mA

Performance Curves

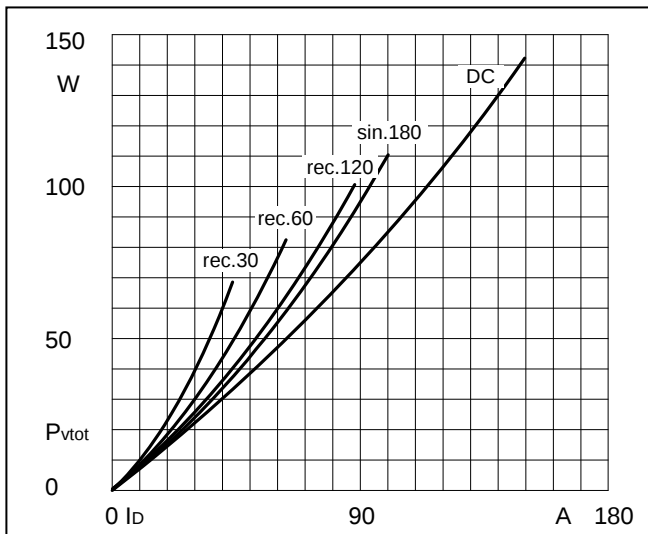


Fig1. Power dissipation

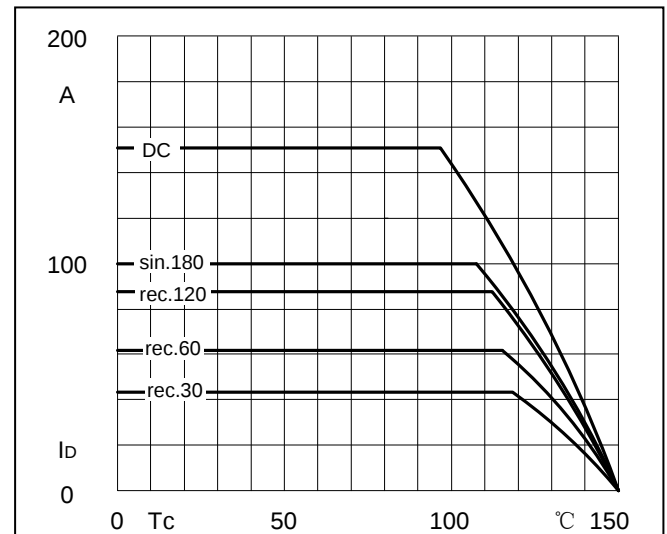


Fig2. Forward Current Derating Curve

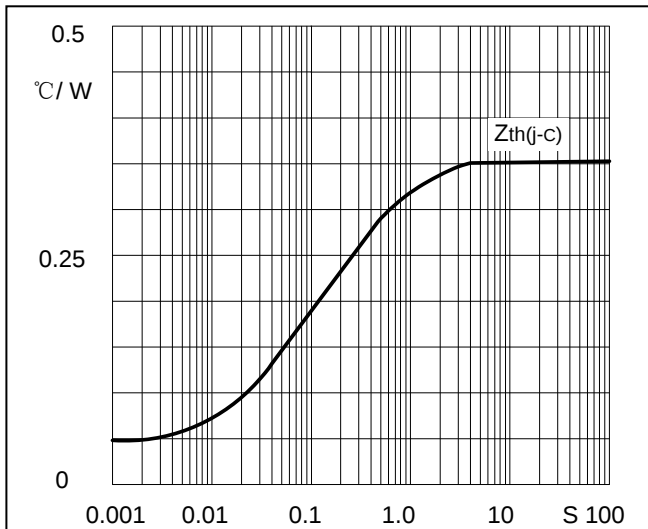


Fig3. Transient thermal impedance

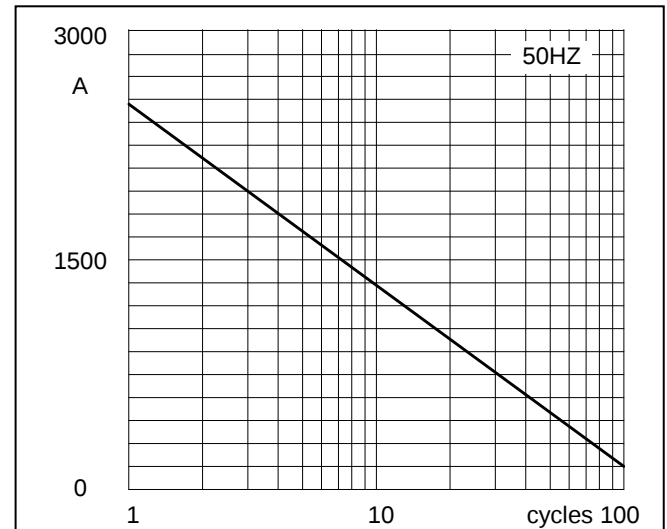


Fig4. Max Non-Repetitive Forward Surge Current

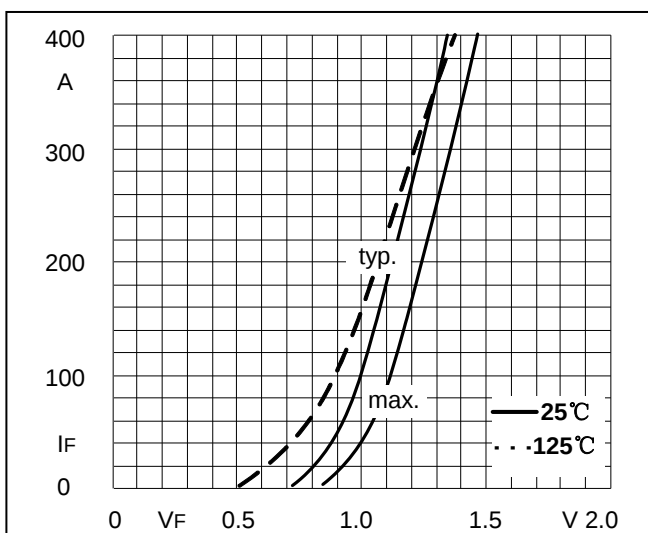


Fig5. Forward Characteristics

Dimensions in mm

Mouser Electronics

Authorized Distributor

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Microsemi:

[MSAD100-12](#) [MSKD100-12](#) [MSKD100-16](#) [MSAD100-18](#) [MSCD100-12](#) [MSCD100-18](#) [MSKD100-18](#) [MSCD100-08](#)
[MSKD100-08](#) [MSAD100-08](#)