



Glass Passivated Rectifier Diode Modules

VRRM 800 to 1800V

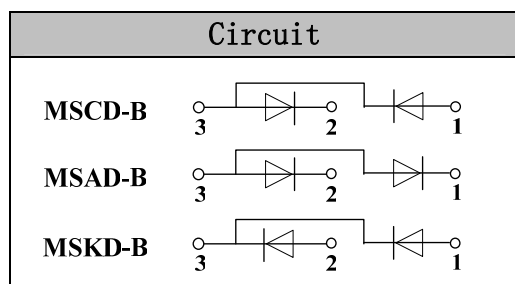
IFAV 165 Amp

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



Module Type

TYPE			VRRM	VRSM
MSCD165B-08	MSAD165B-08	MSKD165B-08	800V	900V
MSCD165B-12	MSAD165B-12	MSKD165B-12	1200V	1300V
MSCD165B-16	MSAD165B-16	MSKD165B-16	1600V	1700V
MSCD165B-18	MSAD165B-18	MSKD165B-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=101°C	165	A
IF(RMS)	Single phase ,half wave 180° conduction Tc=101°C	220	A
IFSM	t=10mS Tvj =45°C	6000	A
i ² t	t=10mS Tvj =45°C	180000	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(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module	240	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.21	°C/W
Rth(c-s)	Module	0.05	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°C IF =300A	—	1.20	1.50	V
IRD	Tvj=150°C VRD=VRRM	—	—	9	mA

Performance Curves

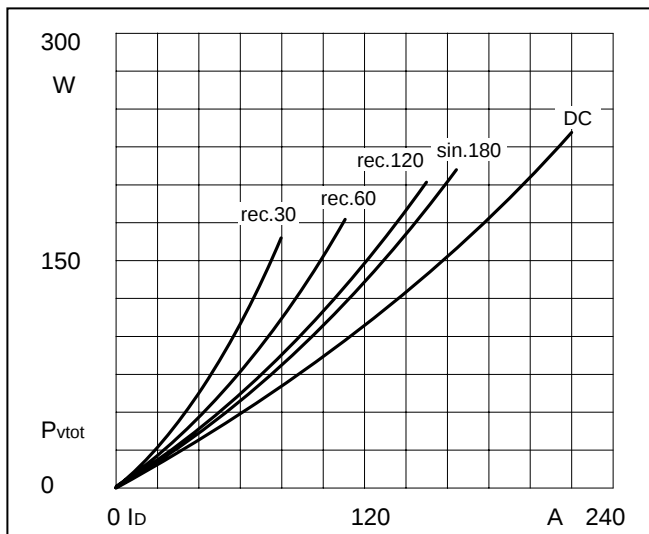


Fig1. Power dissipation

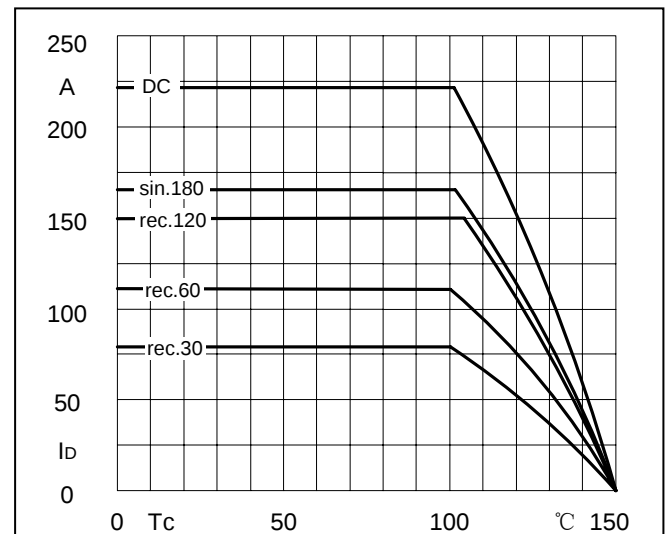


Fig2. Forward Current Derating Curve

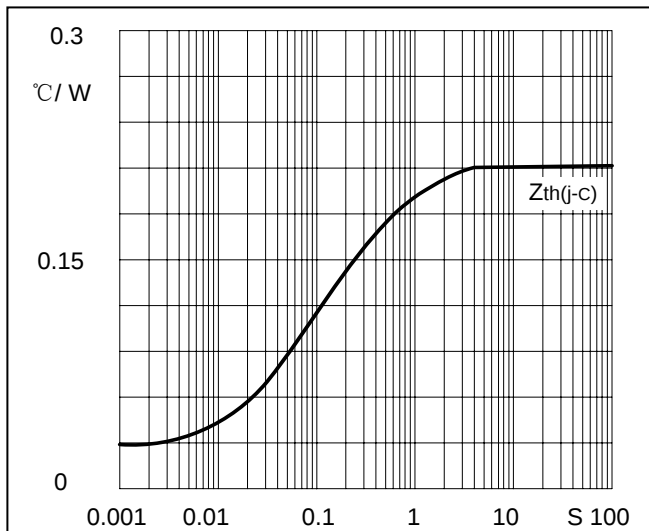


Fig3. Transient thermal impedance

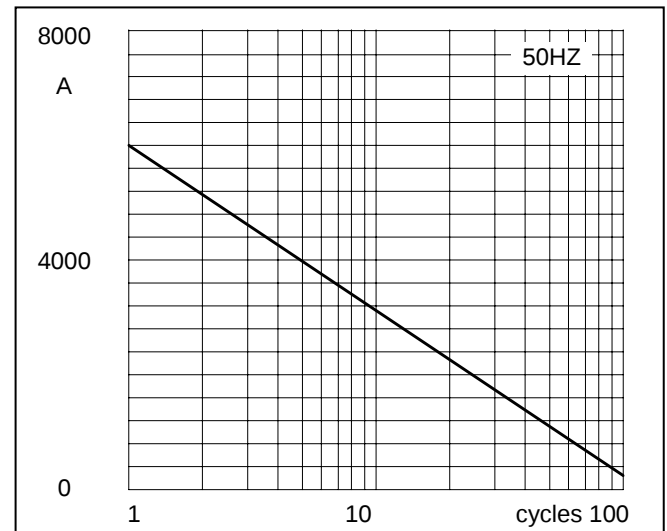


Fig4. Max Non-Repetitive Forward Surge Current

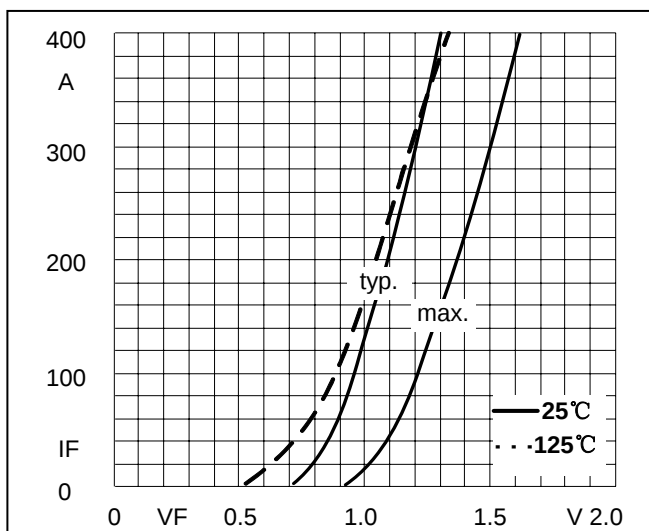
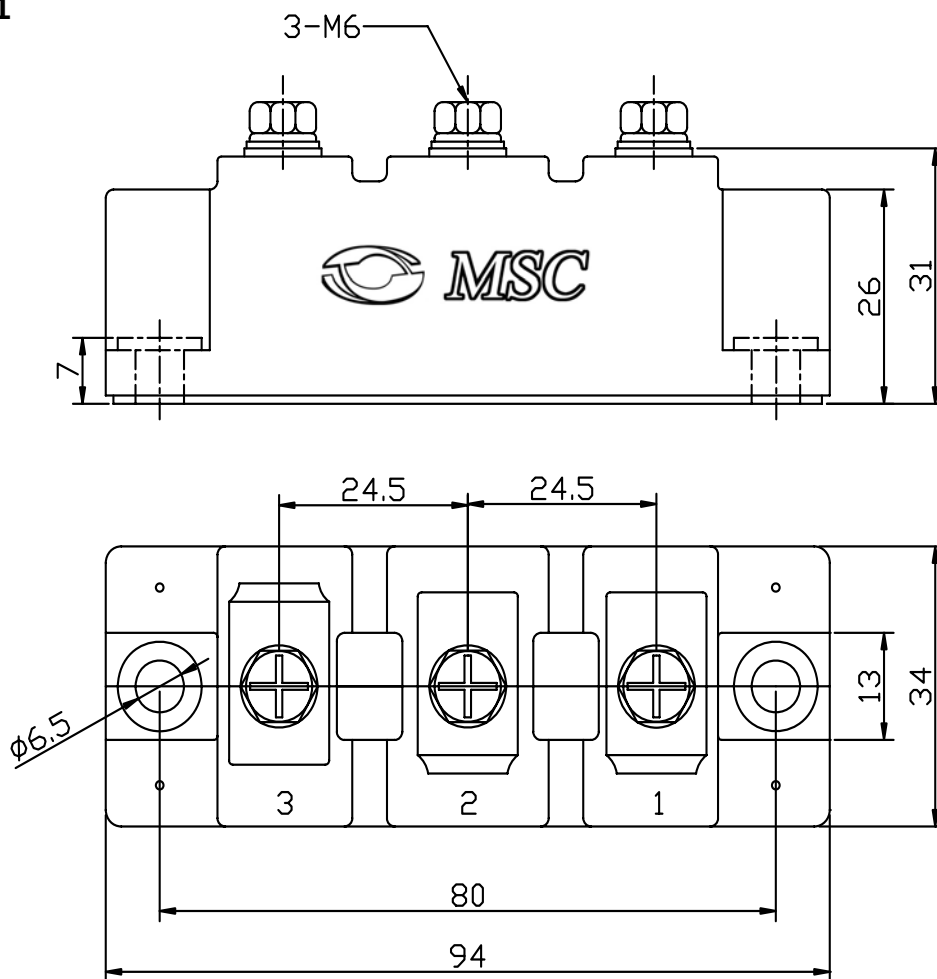


Fig5. Forward Characteristics

Package Outline Information

CASE: D2-1



Dimensions in mm