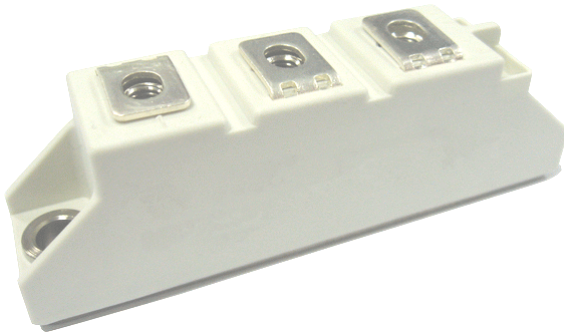


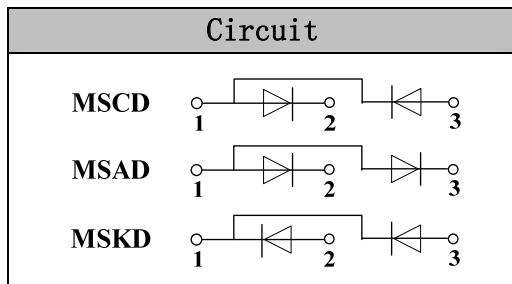
## Glass Passivated Rectifier Diode Modules



**VRRM** 800 to 1800V  
**IFAV** 70 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	V <sub>RSM</sub>
MSCD70-08	MSAD70-08	MSKD70-08	800V	900V
MSCD70-12	MSAD70-12	MSKD70-12	1200V	1300V
MSCD70-16	MSAD70-16	MSKD70-16	1600V	1700V
MSCD70-18	MSAD70-18	MSKD70-18	1800V	1900V

### Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction T <sub>c</sub> =102°C	70	A
IF(RMS)	Single phase ,half wave 180° conduction T <sub>c</sub> =99°C	105	A
IFSM	t=10mS T <sub>vj</sub> =45°C	1400	A
i <sup>2</sup> t	t=10mS T <sub>vj</sub> =45°C	9800	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
M <sub>t</sub>	To terminals(M5)	3±15%	Nm
M <sub>s</sub>	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	100	g

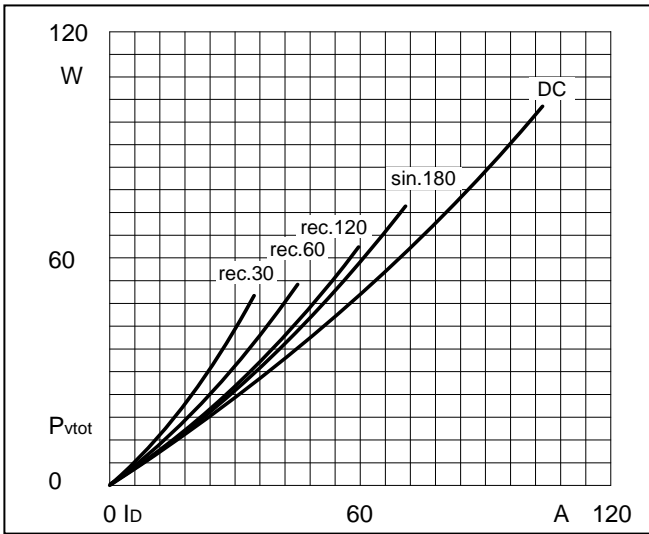
### Thermal Characteristics

Symbol	Conditions	Values	Units
R <sub>th(j-c)</sub>	Per diode	0.51	°C/W
R <sub>th(c-s)</sub>	Module	0.1	°C/W

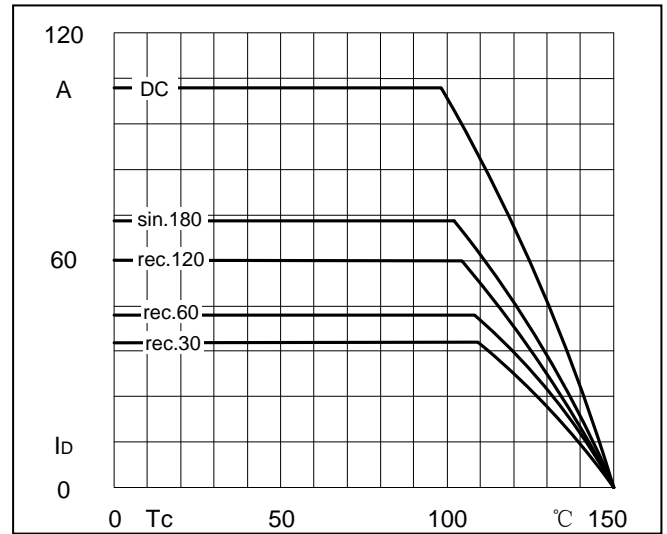
### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V <sub>FM</sub>	T=25°C I <sub>F</sub> =200A	—	1.20	1.48	V
IR <sub>D</sub>	T <sub>vj</sub> =150°C V <sub>RD</sub> =V <sub>RRM</sub>	—	—	5	mA

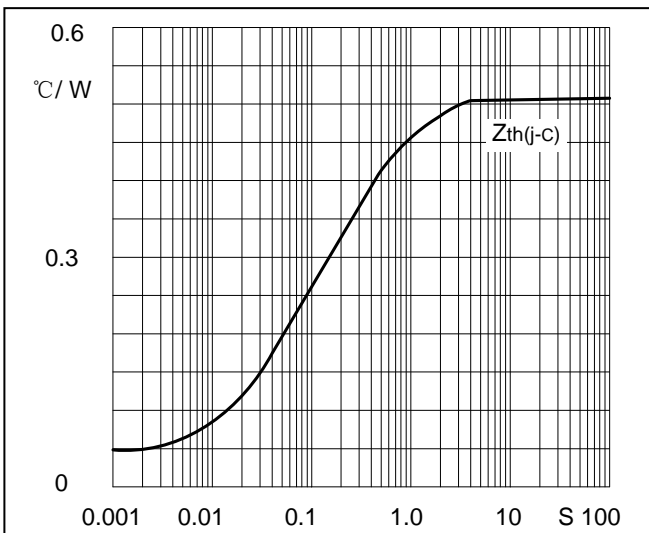
## Performance Curves



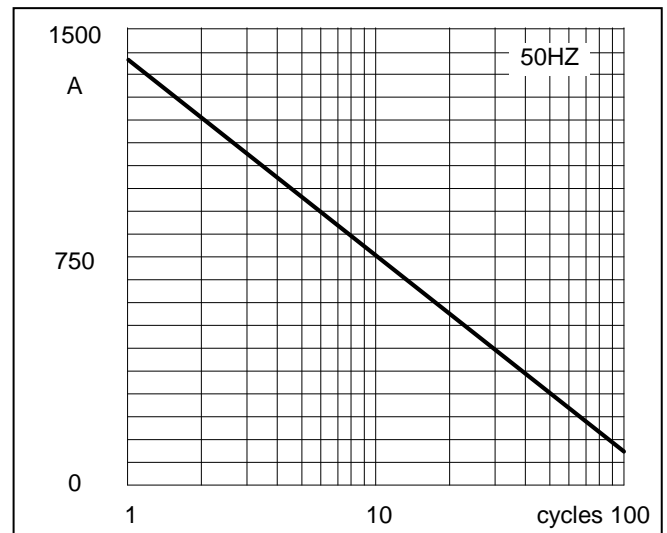
**Fig1. Power dissipation**



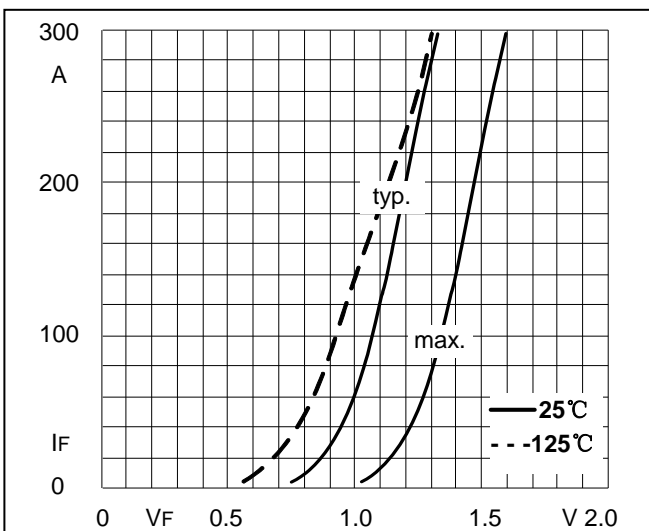
**Fig2. Forward Current Derating Curve**



**Fig3. Transient thermal impedance**



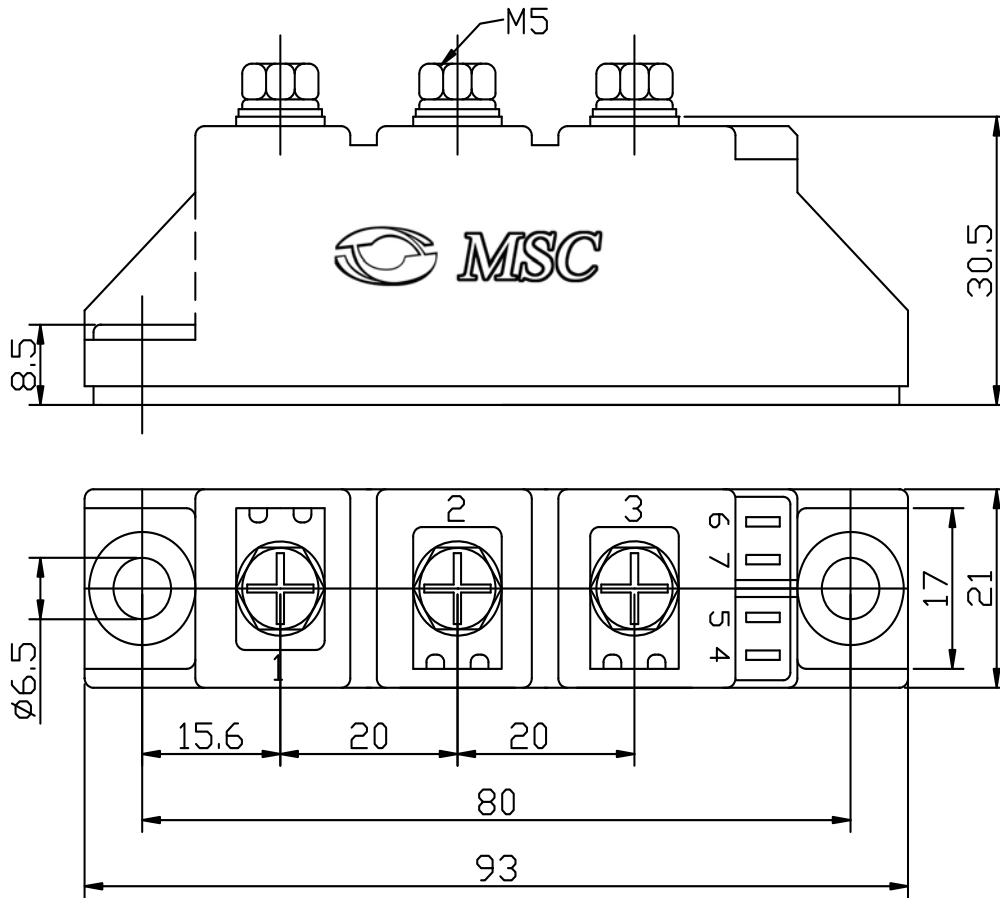
**Fig4. Max Non-Repetitive Forward Surge Current**



**Fig5. Forward Characteristics**

## Package Outline Information

CASE: D1



Dimensions in mm