



## Glass Passivated Rectifier Diode Modules

**VRRM** 800 to 1800V

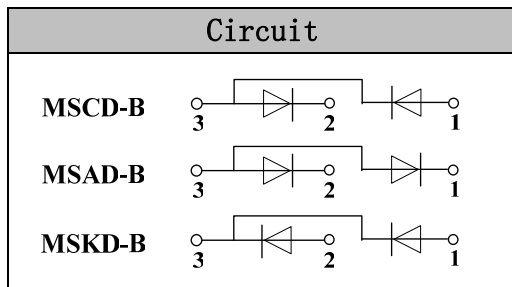
**IFAV** 36 Amp

### 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
MSCD36B-08	MSAD36B-08	MSKD36B-08	800V	900V
MSCD36B-12	MSAD36B-12	MSKD36B-12	1200V	1300V
MSCD36B-16	MSAD36B-16	MSKD36B-16	1600V	1700V
MSCD36B-18	MSAD36B-18	MSKD36B-18	1800V	1900V

### Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=104°C	36	A
IF(RMS)	Single phase ,half wave 180° conduction Tc=100°C	52	A
IFSM	t=10mS Tvj =45°C	650	A
i <sup>2</sup> t	t=10mS Tvj =45°C	2100	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(M5)	3±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module	140	g

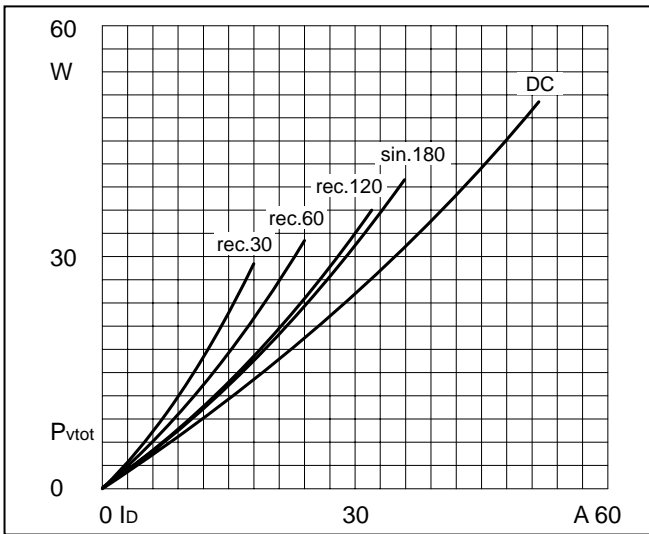
### Thermal Characteristics

Symbol	Conditions	Values	Units
R <sub>th(j-c)</sub>	Per diode	1.0	°C/W
R <sub>th(c-s)</sub>	Module	0.1	°C/W

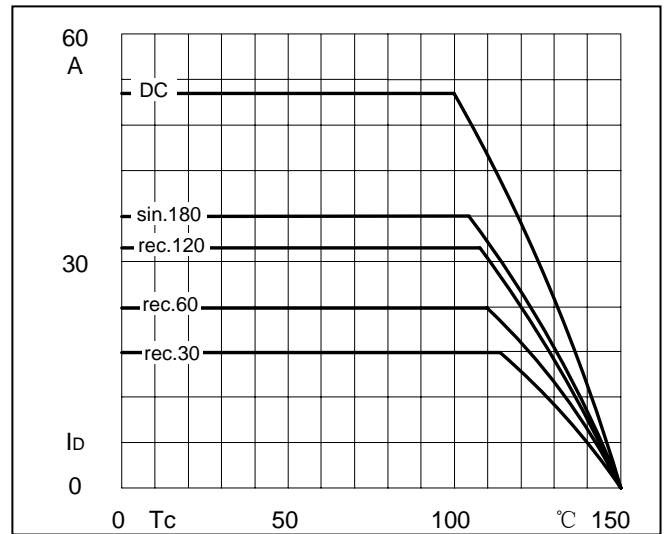
### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V <sub>FM</sub>	T=25°C IF =100A	—	1.19	1.30	V
IRD	Tvj=150°C VRD=VRRM	—	—	5	mA

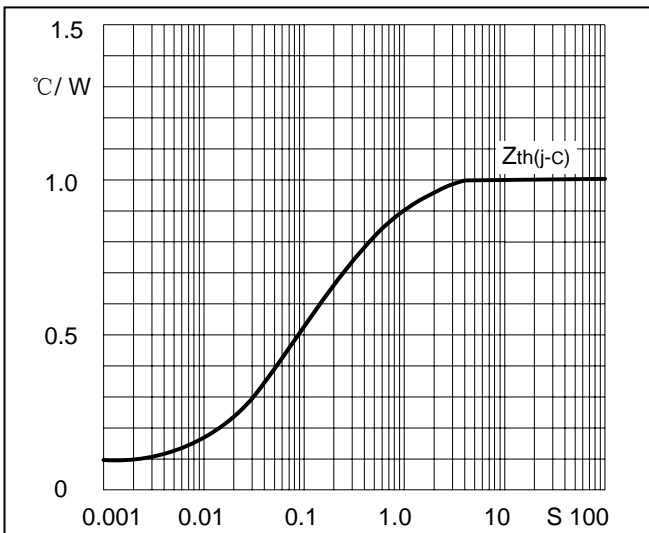
**Performance Curves**



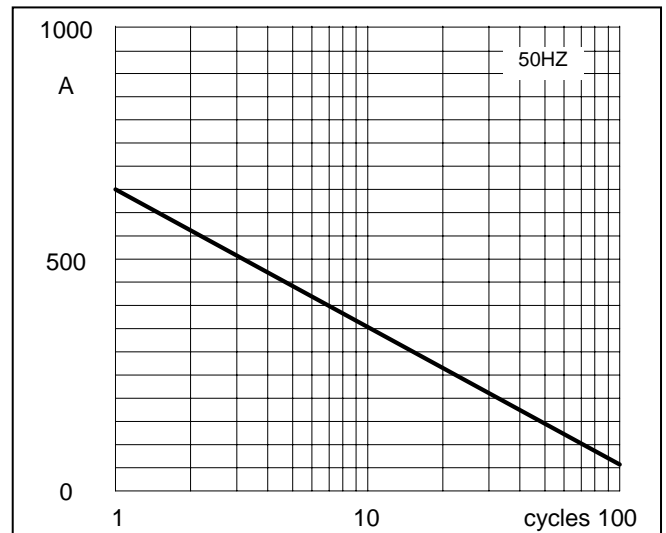
**Fig1. Power dissipation**



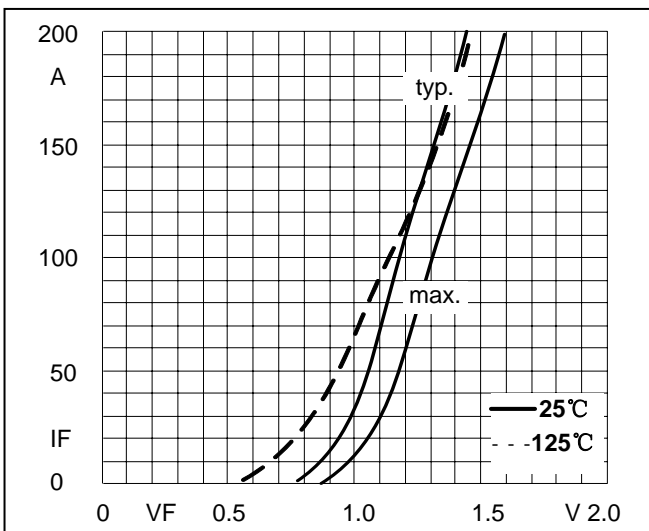
**Fig2. Forward Current Derating Curve**



**Fig3. Transient thermal impedance**



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



**Fig5. Forward Characteristics**

## Package Outline Information

