

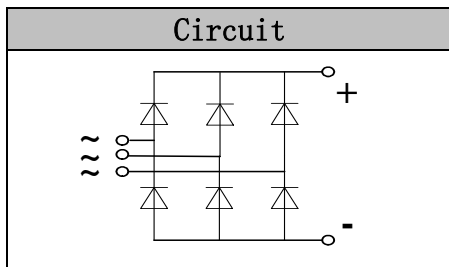
**MD50S08M4**  
**MD50S12M4**  
**MD50S16M4**  
**MD50S18M4**

## Features

- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Blocking Voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

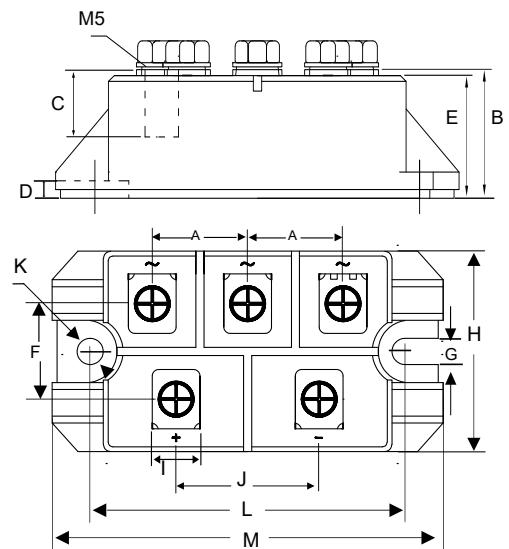
## Applications

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors



**50 Amp**  
**GLASS PASSIVATED**  
**THREE PHASE**  
**RECTIFIER BRIDGE**  
**800~1800 Volts**

**M4**



**DIMENSIONS**

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.768	.807	19.50	20.50	
B	.846	.886	21.50	22.50	
C	.433	.472	11.00	12.00	
D	.098	.138	2.50	3.50	
E	.807	.846	20.50	21.50	
F	.768	.807	19.50	20.50	
G	.197	.236	5.00	6.00	
H	1.63	1.67	41.50	42.50	
I	.374	.413	9.50	10.50	
J	1.16	1.20	29.50	30.50	
K		.217		5.50	∅
L	2.58	2.62	65.50	66.50	
M	3.21	3.25	81.50	82.50	

**Module Type**

TYPE	VRRM	VRSM
MD50S08M4	800V	900V
MD50S12M4	1200V	1300V
MD50S16M4	1600V	1700V
MD50S18M4	1800V	1900V

**Maximum Ratings**

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=110°C	50	A
IFSM	t=10mS Tvj =45°C	460	A
i <sup>2</sup> t	t=10mS Tvj =45°C	1050	A <sup>2</sup> s
Visol	a.c.50HZ;r.m.s.;	3000	V
Tvj		-40 to +150	°C
Tstg		-40 to +125	°C
Mt	To terminals(M5)	5±15%	Nm
Ms	To heatsink(M5)	5±15%	Nm
Weight	Module (Approximately)	146	g

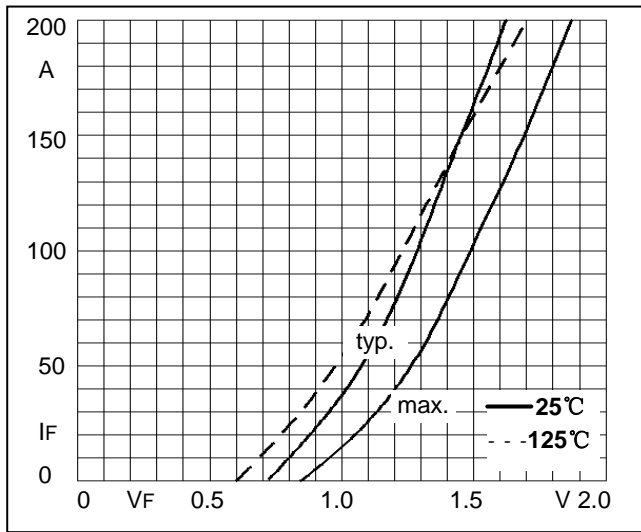
**Thermal Characteristics**

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	1.45	°C/W
Rth(c-s)	Module(Approximately)	0.07	°C/W

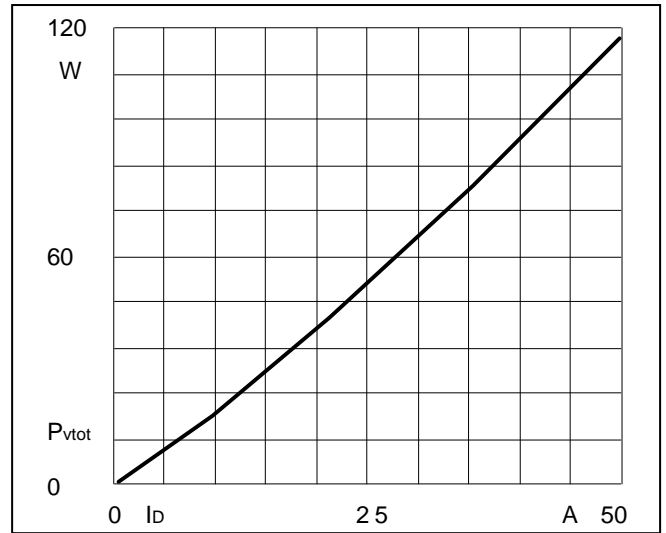
**Electrical Characteristics**

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°C IF =150A	—	1.45	1.7	V
IRD	Tvj=25°C VRD=VRRM	—	—	0.3	mA
	Tvj=150°C VRD=VRRM	—	—	5	mA

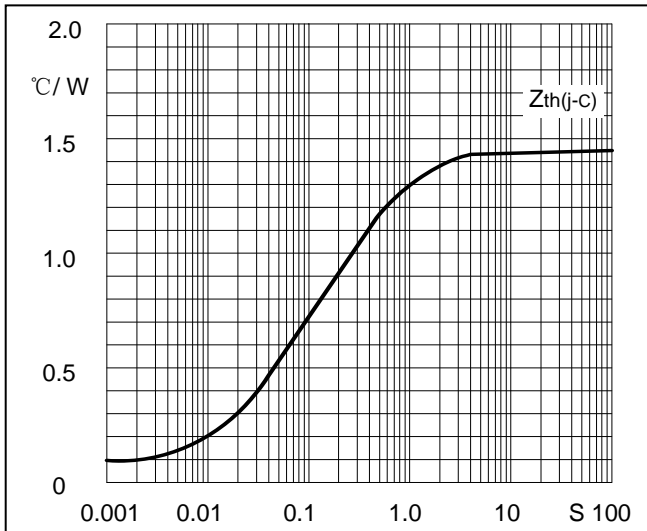
**Performance Curves**



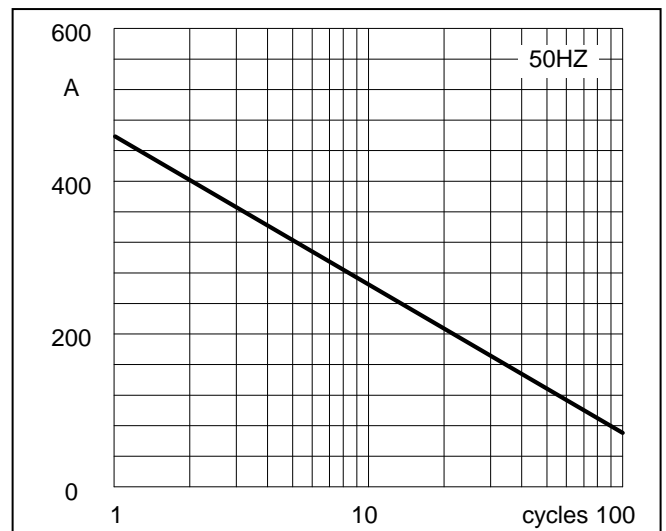
**Fig1. Forward Characteristics**



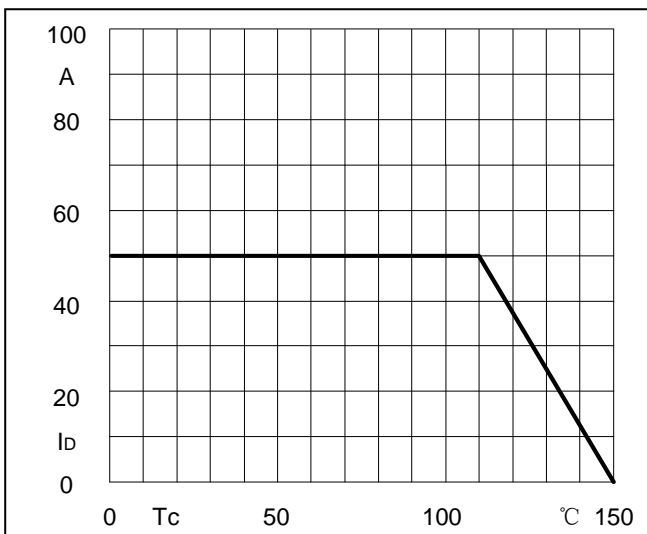
**Fig2. Power dissipation**



**Fig3. Transient thermal impedance**



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



**Fig5. Forward Current Derating Curve**



**Ordering Information :**

Device	Packing
Part Number-BP	Bulk: 6PCS/BOX ;60PCS/CTN

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