



E502650

## Features

- Blocking Voltage:1600V
- Heat Transfer Through Aluminum Oxide DBC Ceramic Isolated Metal Baseplate
- Glass Passivated Chip

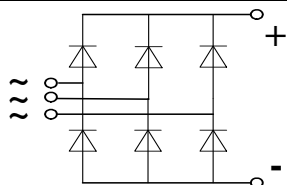
## Applications

- Three Phase Rectifiers for Power Supplies
- Rectifiers for DC Motor Field Supplies
- Input Rectifiers for Variable Frequency Drives

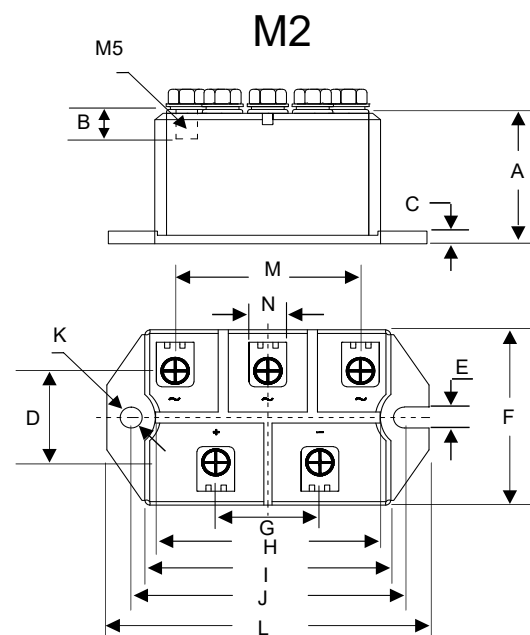
MCC Part Number	$V_{RRM}$	$V_{RSM}$
MD60S16M2	1600V	1700V



## Circuit



# 60 Amp Glass Passivated Three Phase Rectifier Bridge 1600 Volts



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.161	1.201	29.50	30.50	
B	0.256	0.295	6.50	7.50	
C	0.110	0.138	2.80	3.50	
D	0.831	0.870	21.10	22.10	
E	0.197	0.236	5.00	6.00	
F	1.634	1.673	41.50	42.50	
G	0.886	0.925	22.50	23.50	
H	1.870	1.909	47.50	48.50	
I	2.106	2.146	53.50	54.50	
J	2.343	2.382	59.50	60.50	
K	0.217		5.50		Φ
L	2.815	2.854	71.50	72.50	
M	1.555	1.594	39.50	40.50	
N	0.374	0.413	9.50	10.50	

## Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=110°C	60	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.;1min	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)	130	g

## Thermal Characteristics

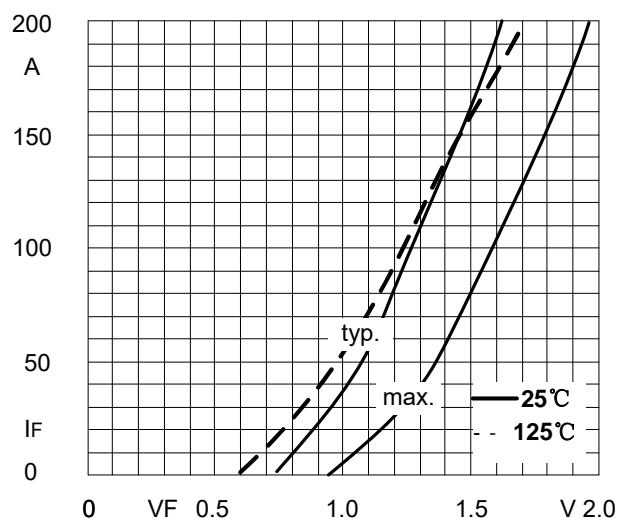
Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	1.45	°C/W
Rth(c-s)	Module	0.07	°C/W

## Electrical Characteristics

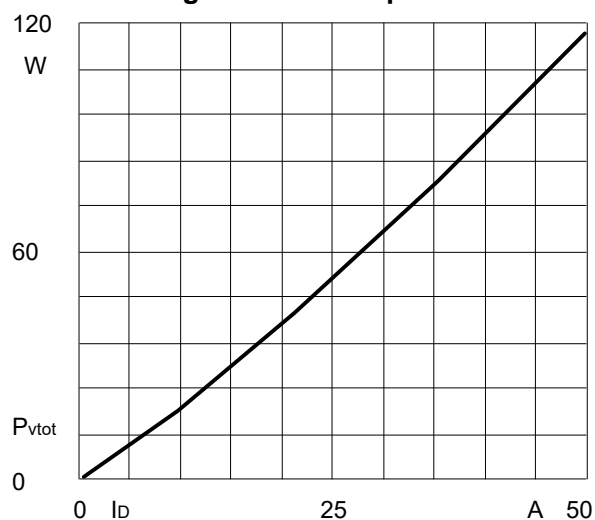
Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	Tvj=25°C IF =150A	—	1.45	1.80	V
IRD	Tvj=25°C VRD=VRRM Tvj=150°C VRD=VRRM	—	—	0.3 5	mA mA

## Performance Curves

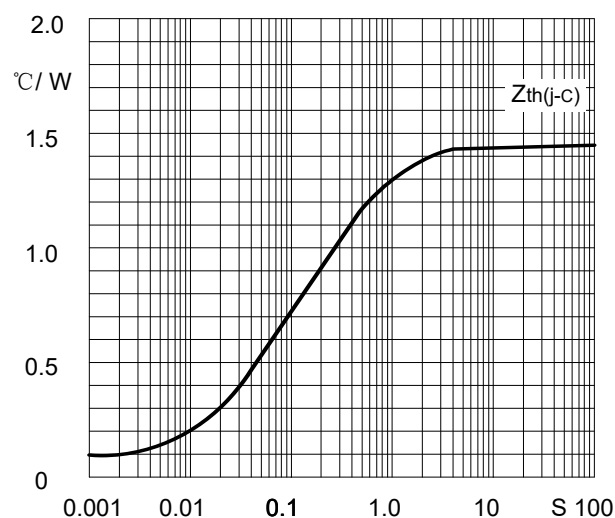
**Fig1. Forward Characteristics**



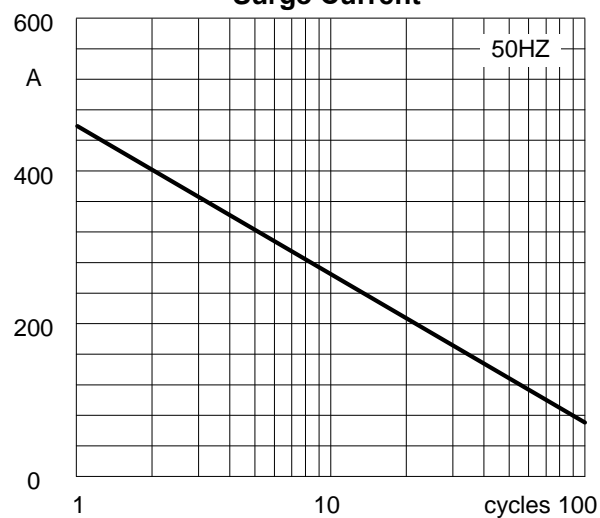
**Fig2. Power dissipation**



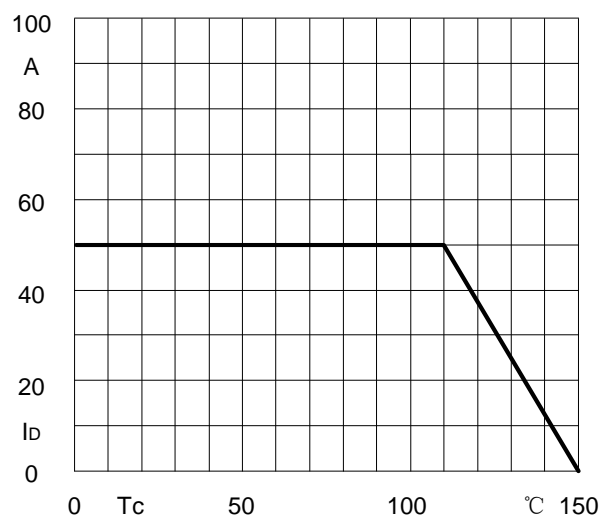
**Fig3. Transient thermal impedance**



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



**Fig5. Forward Current Derating Curve**



## Ordering Information

Device	Packing
Part Number-BP	Bulk: 8PCS/BOX ;80PCS/CTN

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