



Micro Commercial Components



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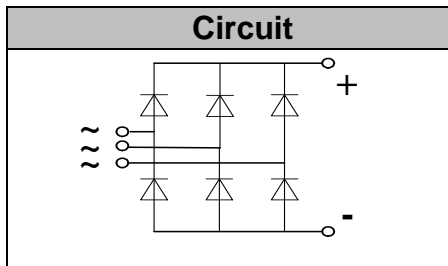
**MD100S08M3**  
**MD100S12M3**  
**MD100S16M3**  
**MD100S18M3**

## Features

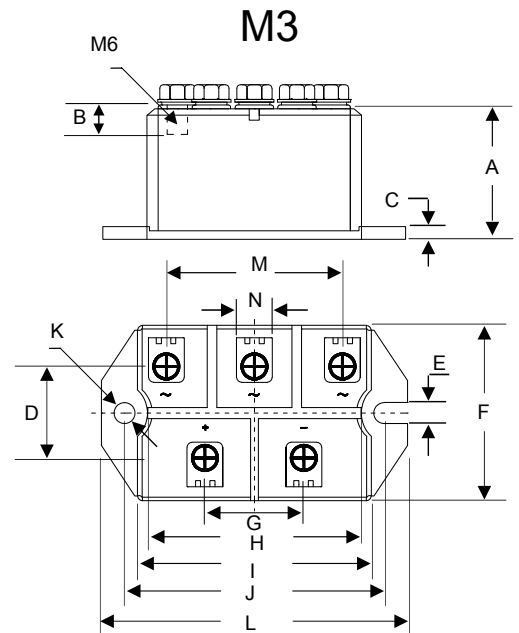
- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Blocking Voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

## Applications

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Input rectifiers for variable frequency drives



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



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.169	1.193	29.70	30.30	
B	.264	.287	6.70	7.30	
C	.118	.130	3.00	3.30	
D	1.05	1.07	26.70	27.30	
E	.244	.268	6.20	6.80	
F	2.114	2.138	53.70	54.30	
G	.972	.996	24.70	25.30	
H	2.587	2.610	65.70	66.30	
I	2.823	2.846	71.70	72.30	
J	3.138	3.161	79.70	80.30	
K		.256		6.50	∅
L	3.689	3.713	93.70	94.30	
M	2.035	2.059	51.70	52.30	
N	.460	.484	11.70	12.30	

### Module Type

TYPE	VRRM	VRSM
MD100S08M3	800V	900V
MD100S12M3	1200V	1300V
MD100S16M3	1600V	1700V
MD100S18M3	1800V	1900V

### Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100°C	100	A
IFSM	t=10mS Tvj =45°C	920	A
i <sup>2</sup> t	t=10mS Tvj =45°C	4200	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(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	230	g

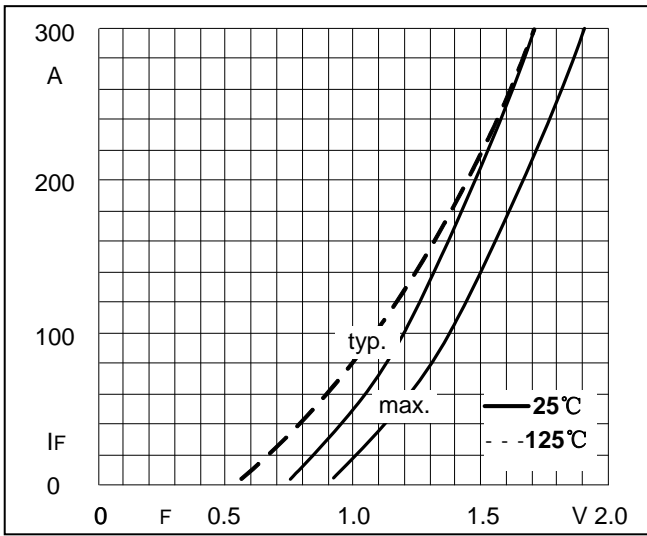
### Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.90	°C/W
Rth(c-s)	Module	0.03	°C/W

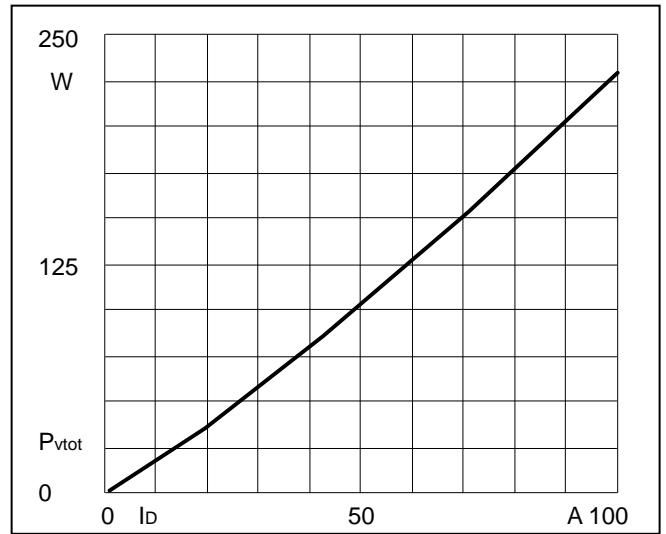
### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°C IF =300A	—	1.70	1.90	V
IRD	Tvj=25°C VRD=VRRM	—	—	0.3	mA
	Tvj=150°C VRD=VRRM			5	

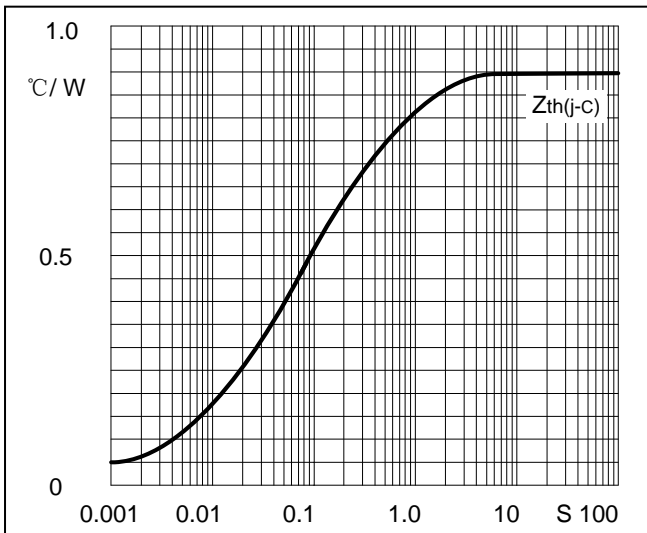
**Performance Curves**



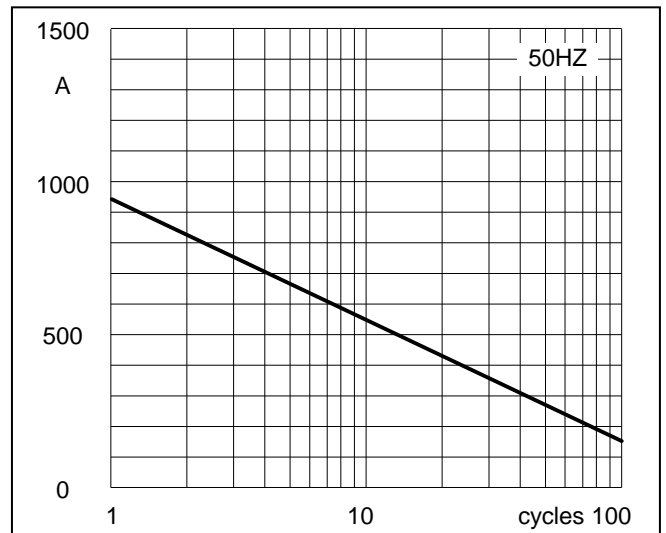
**Fig1. Forward Characteristics**



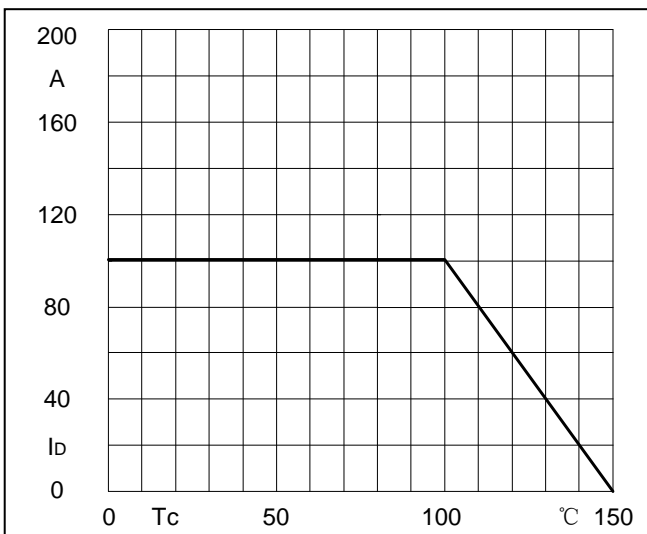
**Fig2. Power dissipation**



**Fig3. Transient thermal impedance**



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



**Fig5. Forward Current Derating Curve**



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## Ordering Information :

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

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