Micro Commercial Components
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MD100S08M5
MD100S12M5
MD100S16M5
MD100S18M5

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

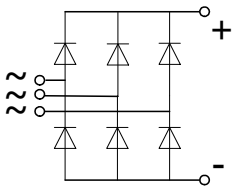
Features

- 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

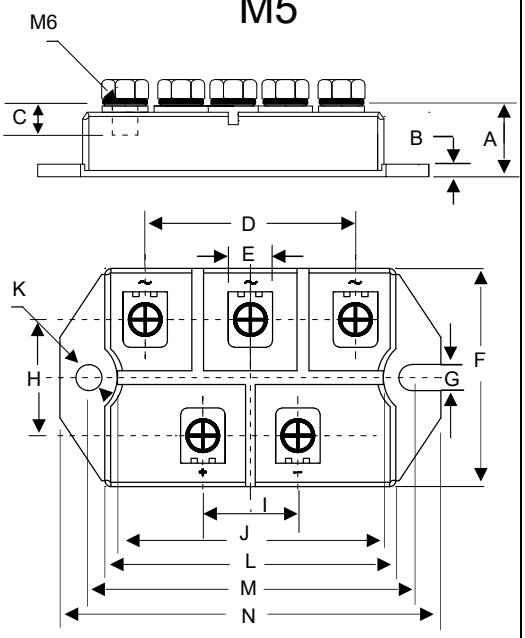
Applications

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

Circuit



M5



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.657	.681	16.70	17.30	
B	.106	.130	2.70	3.30	
C	.264	.287	6.70	7.30	
D	2.04	2.06	51.70	52.30	
E	.461	.484	11.70	12.30	
F	2.11	2.14	53.70	54.30	
G	.244	.268	6.20	6.80	
H	1.05	1.07	26.70	27.30	
I	.972	.996	24.70	25.30	
J	2.59	2.61	65.70	66.30	
K	.256		6.50		Ø
L	2.82	2.85	71.70	72.30	
M	3.14	3.16	79.70	80.30	
N	3.69	3.71	93.70	94.30	

Module Type

TYPE	VRRM	VRSM
MD100S08M5	800V	900V
MD100S12M5	1200V	1300V
MD100S16M5	1600V	1700V
MD100S18M5	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I_D	Three phase, full wave Tc=100℃	100	A
I_{FSM}	t=10mS Tvj =45℃	920	A
i^2t	t=10mS Tvj =45℃	4200	A^2s
V_{isol}	a.c.50HZ;r.m.s.;1min	3000	V
T_{vj}		-40 to +150	℃
T_{stg}		-40 to +125	℃
Mt	To terminals(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	194	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Per diode	0.9	℃/W
Rth(c-s)	Module	0.03	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{FM}	T=25℃ I_F =300A	—	1.70	1.90	V
I_{RD}	T_{vj}=25℃ V_{RD}=V_{RRM} T_{vj}=150℃ V_{RD}=V_{RRM}	—	—	0.3 5	mA mA

Performance Curves

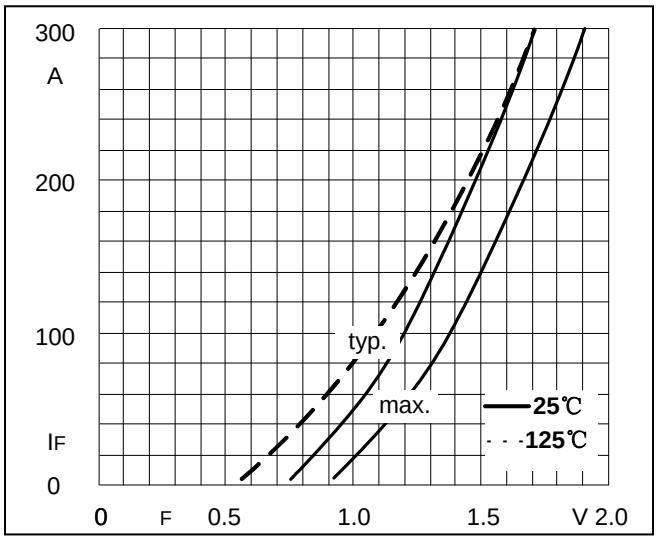


Fig1. Forward Characteristics

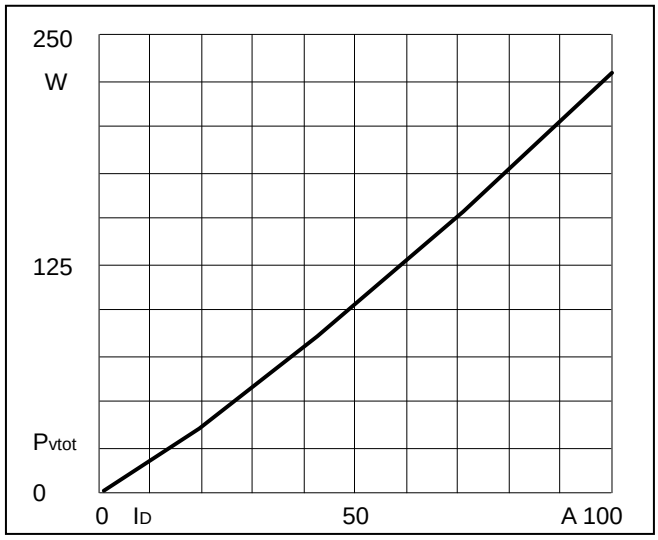


Fig2. Power dissipation

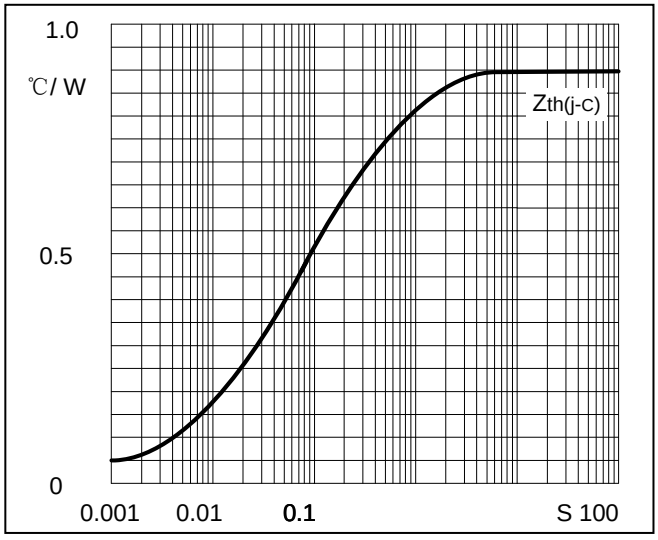


Fig3. Transient thermal impedance

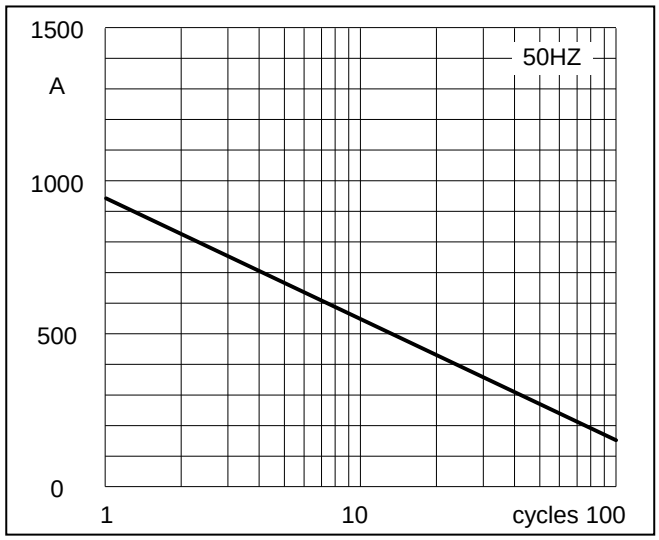


Fig4. Max Non-Repetitive Forward Surge Current

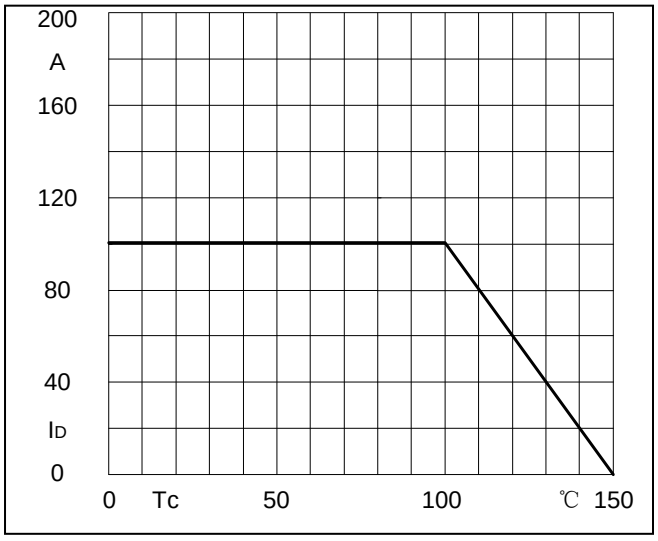


Fig5.Forward Current Derating Curve

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Ordering Information :

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

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