



Micro Commercial Components



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MD130S08M5
MD130S12M5
MD130S16M5
MD130S18M5

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

Features

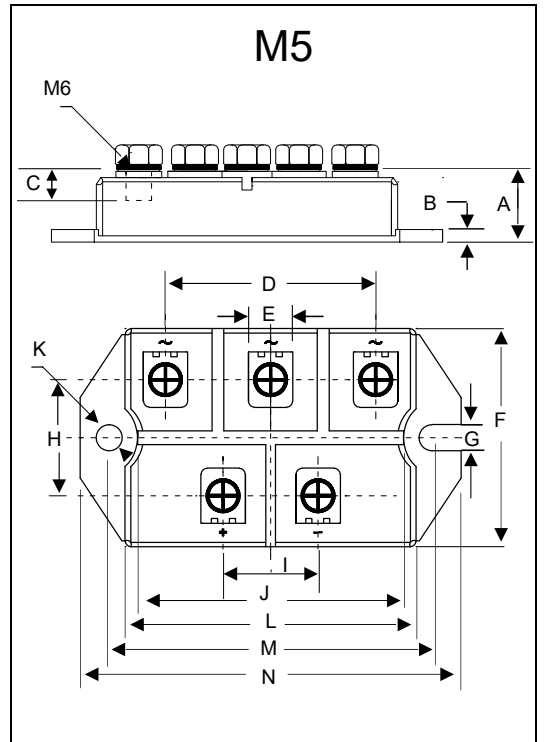
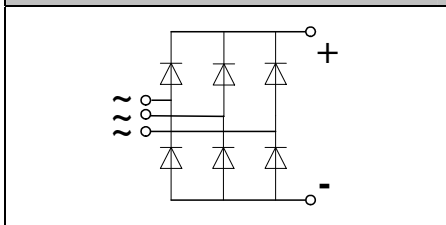
- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Blocking Voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

Applications

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



Circuit



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.650	0.689	16.50	17.50	
B	0.098	0.138	2.50	3.50	
C	0.256	0.295	6.50	7.50	
D	2.028	2.067	51.50	52.50	
E	0.453	0.492	11.50	12.50	
F	2.106	2.146	53.50	54.50	
G	0.236	0.276	6.00	7.00	
H	1.043	1.083	26.50	27.50	
I	0.965	1.004	24.50	25.50	
J	2.579	2.618	65.50	66.50	
K	0.256		6.50		Φ
L	2.815	2.854	71.50	72.50	
M	3.130	3.169	79.50	80.50	
N	3.681	3.720	93.50	94.50	

Module Type

TYPE	VRRM	VRSM
MD130S08M5	800V	900V
MD130S12M5	1200V	1300V
MD130S16M5	1600V	1700V
MD130S18M5	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I _D	Three phase, full wave T _c =100°C	130	A
I _{FSM}	t=10mS T _{vj} =45°C	1200	A
i ² t	t=10mS T _{vj} =45°C	7200	A ² s
V _{isol}	a.c.50HZ;r.m.s.;1min	3000	V
T _{vj}		-40 to +150	°C
T _{stg}		-40 to +125	°C
M _t	To terminals(M6)	5±15%	Nm
M _s	To heatsink(M6)	5±15%	Nm
Weight	Module	194	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	0.9	°C/W
R _{th(c-s)}	Module (Approximately)	0.03	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25°C I _F =300A	—	1.58	1.80	V
I _{RD}	T _{vj} =25°C V _{RD} =V _{RRM}	—	—	0.3	mA
	T _{vj} =150°C V _{RD} =V _{RRM}	—	—	5	mA

Performance Curves

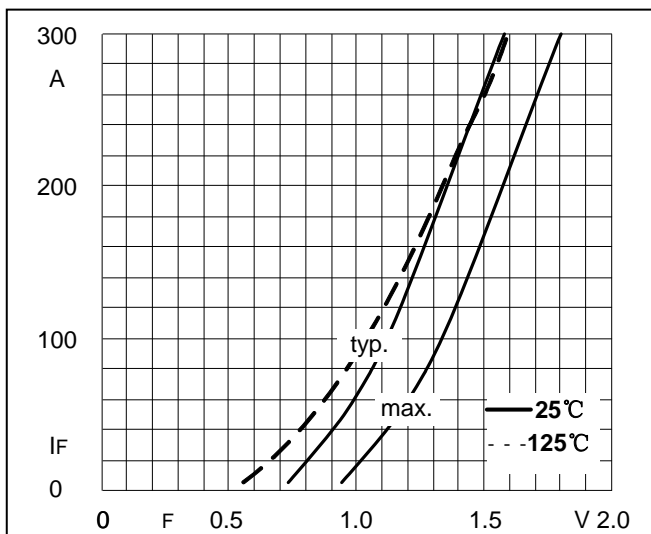


Fig1. Forward Characteristics

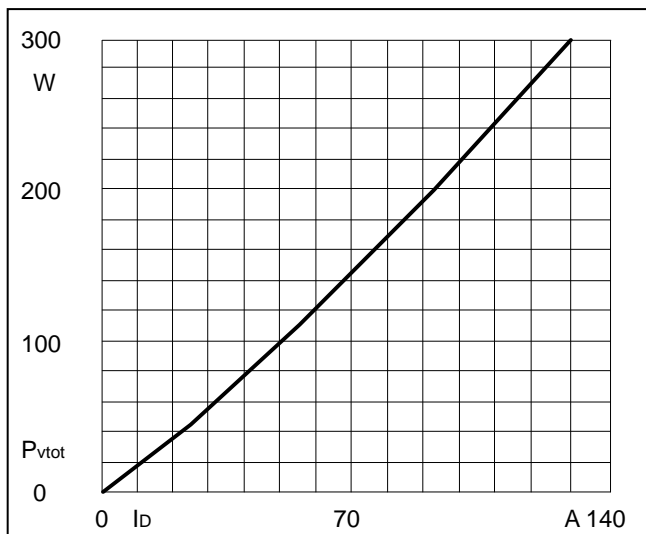


Fig2. Power dissipation

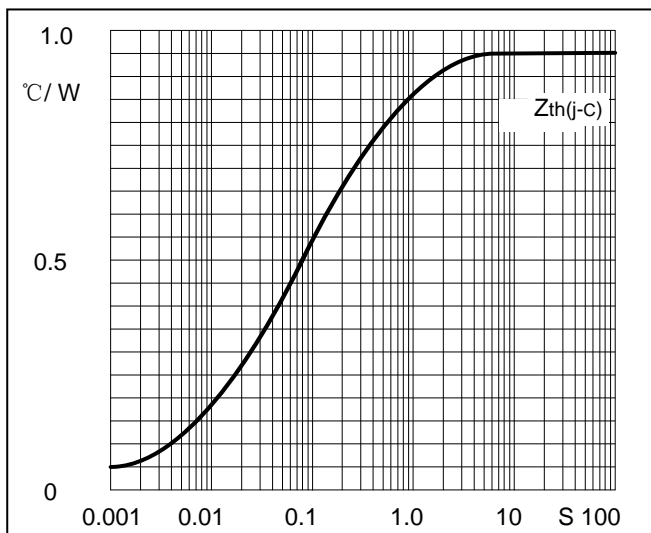


Fig3. Transient thermal impedance

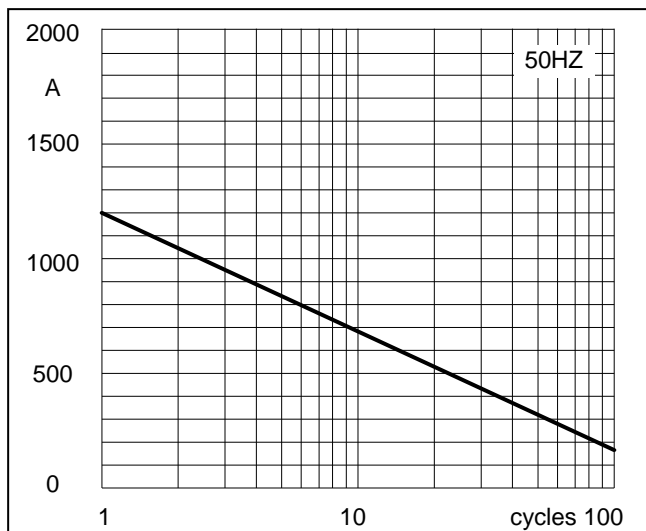


Fig4. Max Non-Repetitive Forward Surge Current

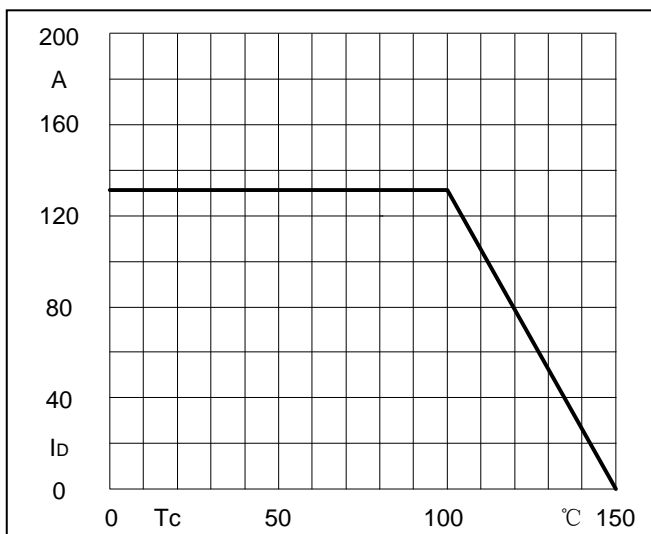


Fig5. Forward Current Derating Curve



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Ordering Information :

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

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