



Micro Commercial Components



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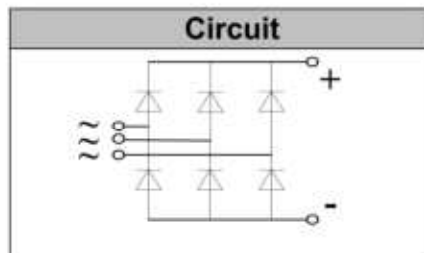
MD160S08M3
MD160S12M3
MD160S16M3
MD160S18M3

Features

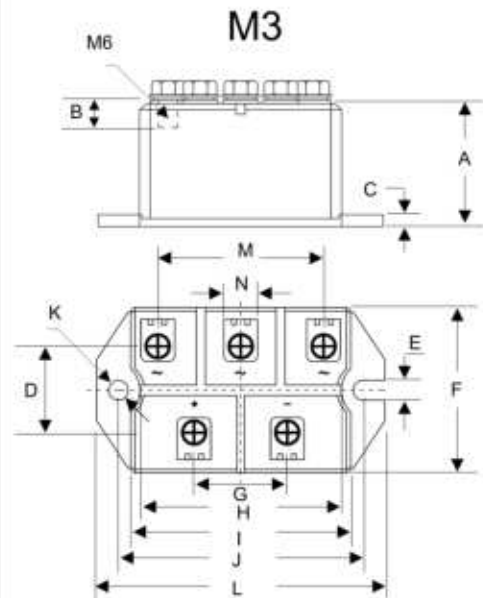
- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Blocking Voltage: 800 to 1800V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

Applications

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



160 Amp
GLASS PASSIVATED
THREE PHASE
RECTIFIER BRIDGE
800~1800 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	1.043	1.083	26.50	27.50	
E	0.236	0.276	6.00	7.00	
F	2.106	2.146	53.50	54.50	
G	0.965	1.004	24.50	25.50	
H	2.579	2.618	65.50	66.50	
I	2.815	2.854	71.50	72.50	
J	3.130	3.169	79.50	80.50	
K	0.256		6.50		Φ
L	3.681	3.720	93.50	94.50	
M	2.028	2.067	51.50	52.50	
N	0.453	0.492	11.50	12.50	

Module Type

TYPE	VRRM	VRSM
MD160S08M3	800V	900V
MD160S12M3	1200V	1300V
MD160S16M3	1600V	1700V
MD160S18M3	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
ID	Three phase, full wave Tc=100°C	160	A
IFSM	t=10mS Tvj =45°C	1800	A
i ² t	t=10mS Tvj =45°C	16200	A ² 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	0.65	°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	—	1.50	1.75	V
IRD	Tvj=25°C VRD=VRRM Tvj=150°C VRD=VRRM	—	—	0.5 6	mA mA

Performance Curves

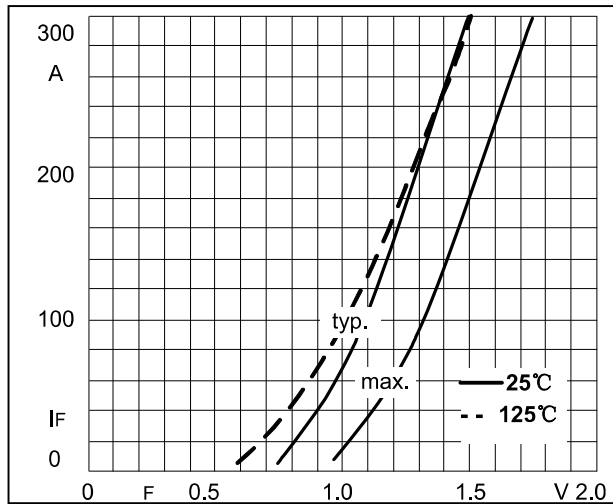


Fig1. Forward Characteristics

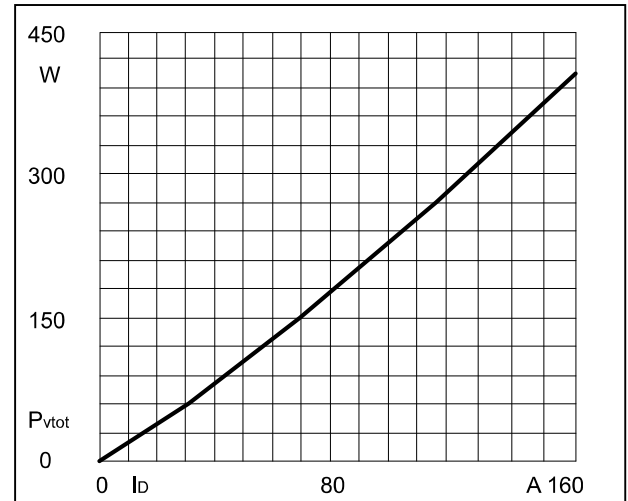


Fig2. Power dissipation

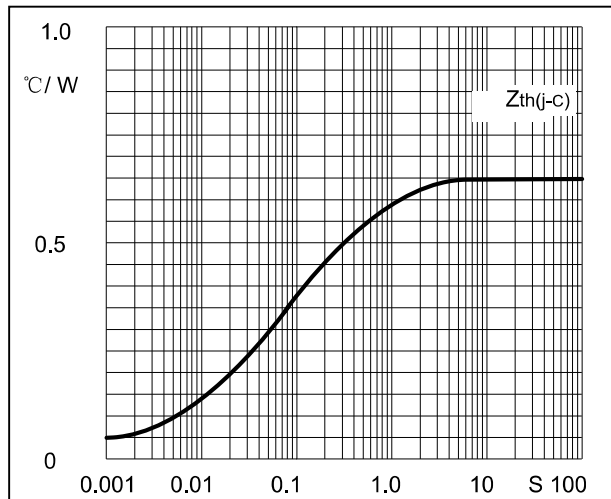


Fig3. Transient thermal impedance

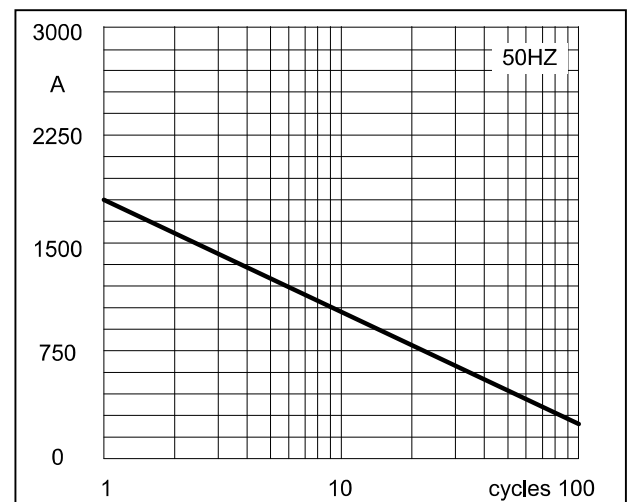


Fig4. Max Non-Repetitive Forward Surge Current

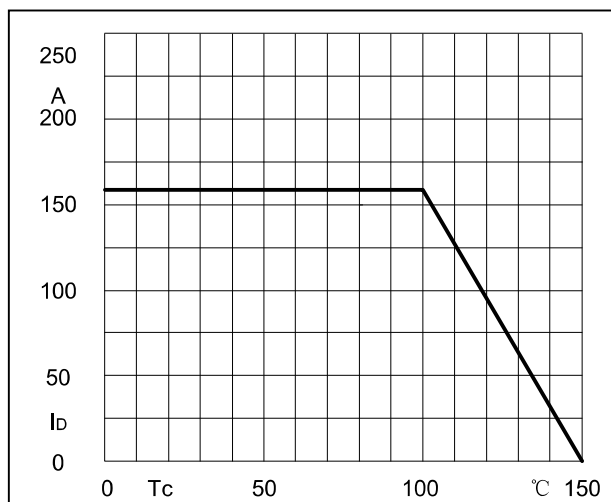


Fig5. Forward Current Derating Curve



Ordering Information :

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

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