



Micro Commercial Components
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MD70C08D1
MD70C12D1
MD70C16D1
MD70C18D1

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

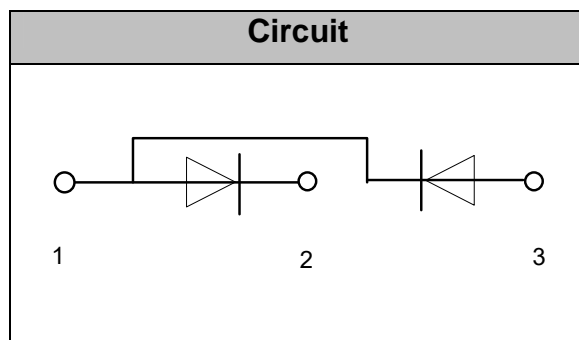
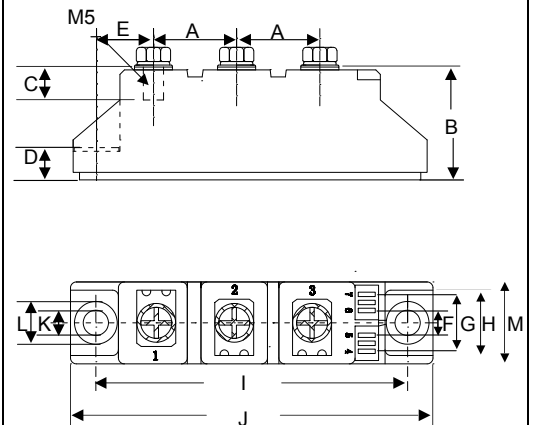
Applications

- Non-controllable rectifiers for AC/AC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors



70 Amp
GLASS PASSIVATED
RECTIFIER DIODE
MODULES
800~1800 Volts

D1



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.776	.799	19.70	20.30	
B	1.169	1.193	29.70	30.30	
C	.343	.366	8.70	9.30	
D	.323	.346	8.20	8.80	
E	.602	.622	15.30	15.80	
F	.224	.248	5.70	6.30	
G	.539	.563	13.70	14.30	
H	.657	.681	16.70	17.30	
I	3.138	3.161	79.70	80.30	
J	3.650	3.673	92.70	93.30	
K		.256		6.50	∅
L	.421	.445	10.70	11.30	
M	.815	.839	20.70	21.30	

Module Type

TYPE	VRRM	VRSM
MD70C08D1	800V	900V
MD70C12D1	1200V	1300V
MD70C16D1	1600V	1700V
MD70C18D1	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I _{FAV}	Single phase ,half wave 180° conduction T _c =102°C	70	A
I _{FSM}	t=10mS T _{vj} =45°C	1400	A
i ² t	t=10mS T _{vj} =45°C	9800	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	T terminals(M5)	3±15%	Nm
M _s	T heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	100	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	0.51	°C/W
R _{th(c-s)}	Module	0.1	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V _{FM}	T=25°C I _F =200A	—	1.20	1.30	V
I _{RD}	T _{vj} =150°C V _{RD} =V _{RRM}	—	—	5	m

Performance Curves

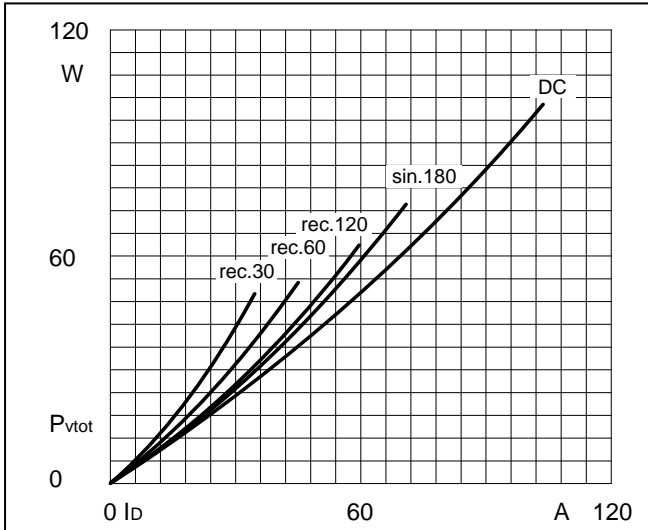


Fig1. Power dissipation

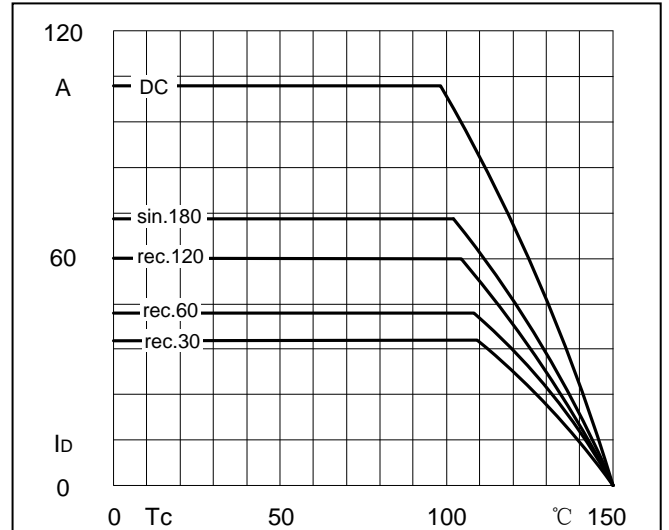


Fig2. Forward Current Derating Curve

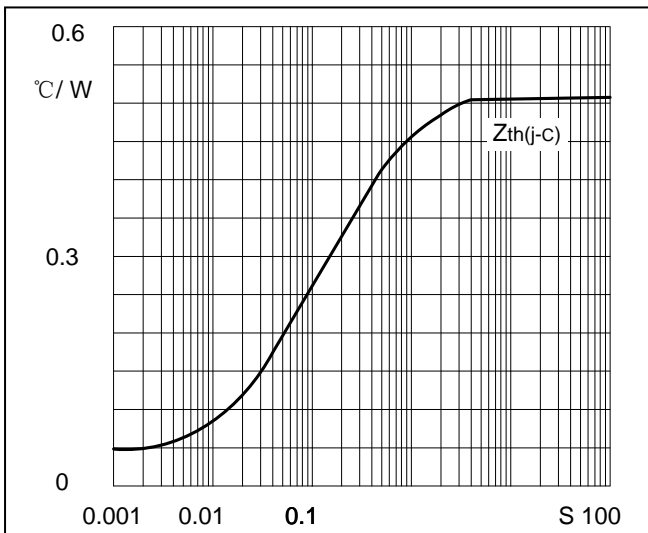


Fig3. Transient thermal impedance

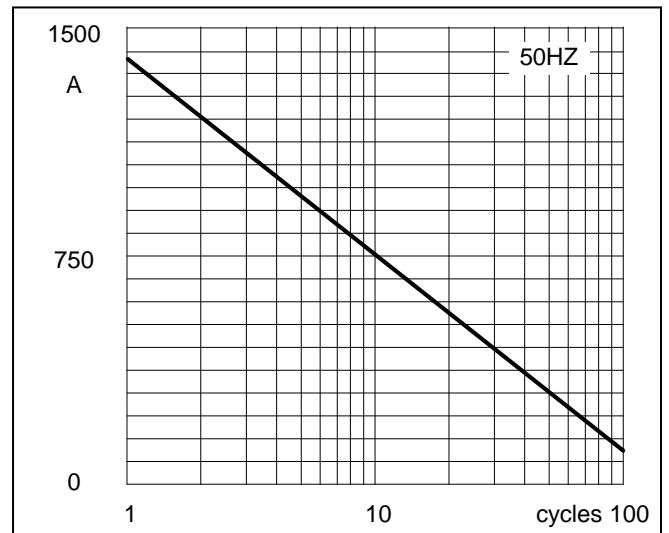


Fig4. Max Non-Repetitive Forward Surge Current

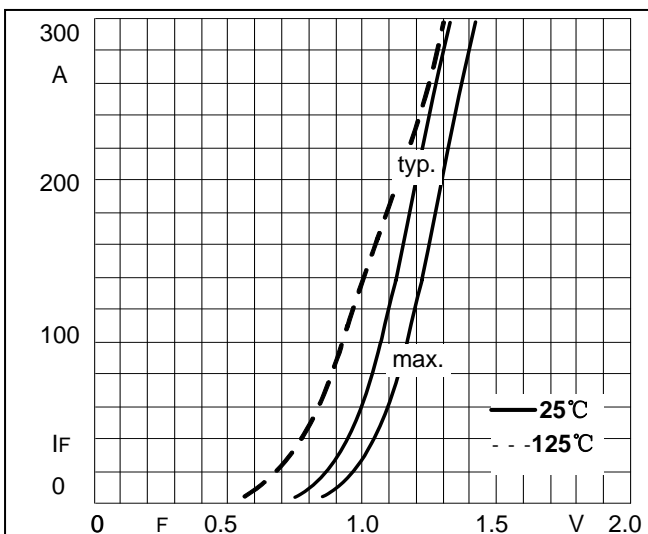


Fig5. Forward Characteristics



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Ordering Information :

Device	Packing
Part Number-BP	Bulk: 10PCS/BOX ;100PCS/CTN

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