



Micro Commercial Components
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MD70K08D1
MD70K12D1
MD70K16D1
MD70K18D1

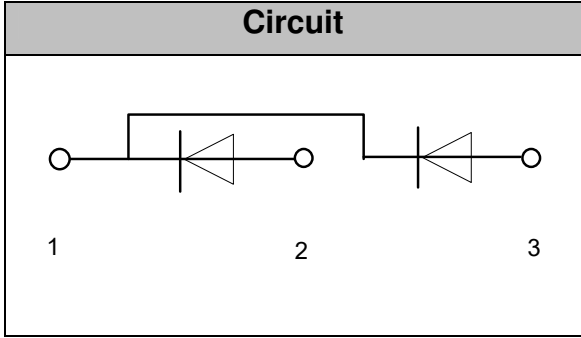
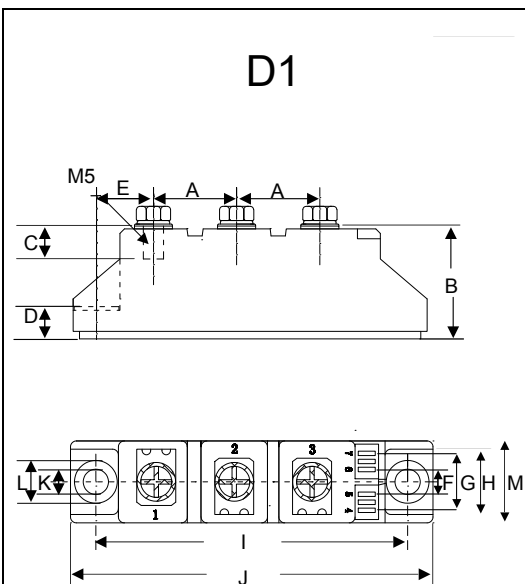
70 Amp
GLASS PASSIVATED
RECTIFIER DIODE
MODULES
800~1800 Volts

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

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



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.768	0.807	19.50	20.50	
B	1.161	1.201	29.50	30.50	
C	0.335	0.374	8.50	9.50	
D	0.315	0.354	8.00	9.00	
E	0.594	0.630	15.10	16.00	
F	0.217	0.256	5.50	6.50	
G	0.531	0.571	13.50	14.50	
H	0.650	0.689	16.50	17.50	
I	3.130	3.169	79.50	80.50	
J	3.642	3.681	92.50	93.50	
K		0.256		6.50	Φ
L	0.413	0.453	10.50	11.50	
M	0.807	0.846	20.50	21.50	

Module Type

TYPE	VRRM	VRSM
MD70K08D1	800V	900V
MD70K12D1	1200V	1300V
MD70K16D1	1600V	1700V
MD70K18D1	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=102°C	70	A
IFSM	t=10mS Tvj =45°C	1400	A
i ² t	t=10mS Tvj =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
Mt	To terminals(M5)	3±15%	Nm
Ms	To 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	mA

Performance Curves

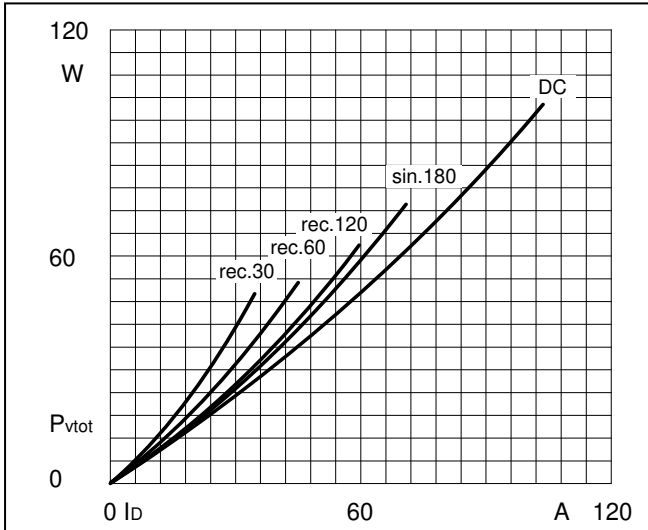


Fig1. Power dissipation

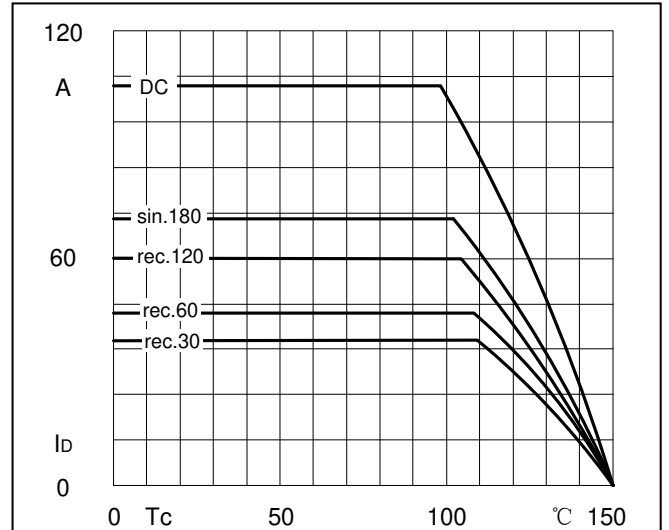


Fig2. Forward Current Derating Curve

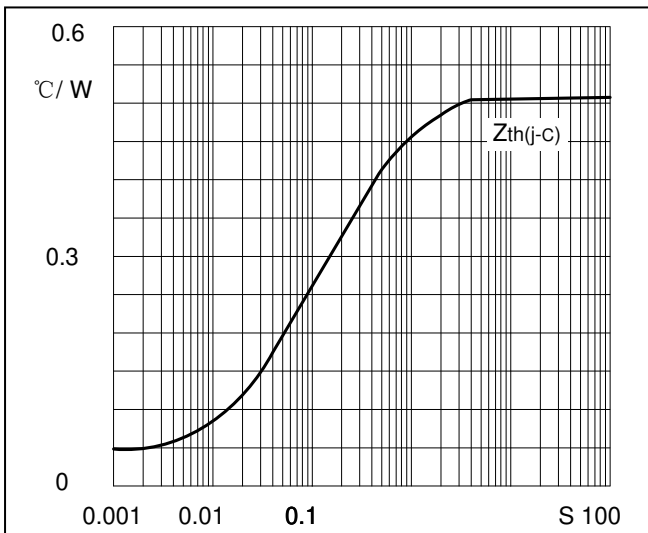


Fig3. Transient thermal impedance

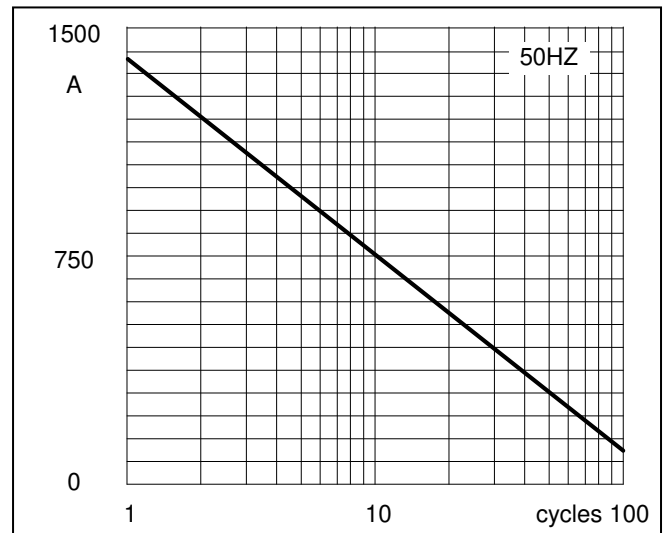


Fig4. Max Non-Repetitive Forward Surge Current

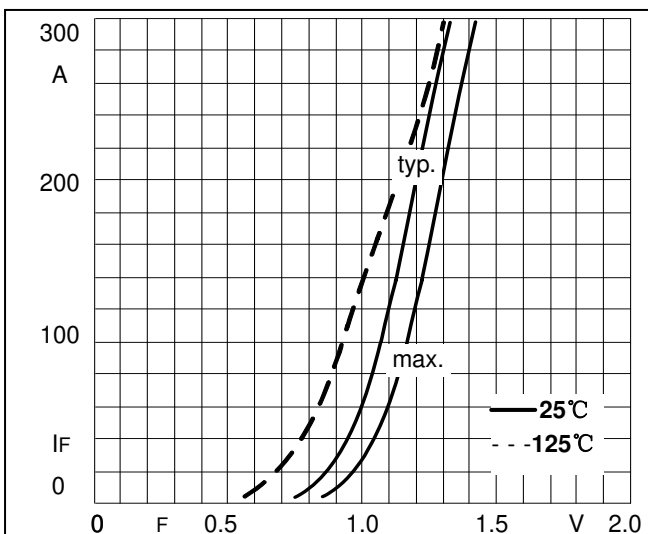


Fig5. Forward Characteristics



Ordering Information :

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

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