Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Heat Transfer Through Aluminum Oxide DBC Ceramic Isolated Metal Baseplate
- Blocking voltage:1200 to 1600V
- Glass passivated chip

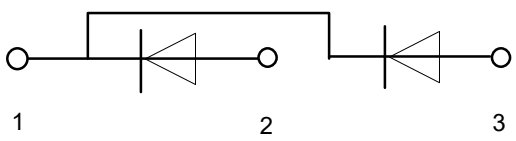
100 Amp GLASS PASSIVATED RECTIFIER DIODE MODULES 1200~1600 Volts

Applications

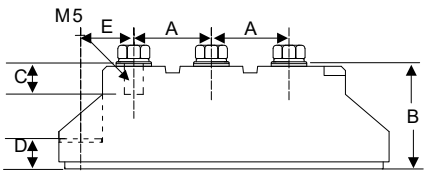
- Non-Controllable Rectifiers for AC/AC Converters
- Line Rectifiers for Transistorized AC Motor Controllers
- Field Supply for DC Motors

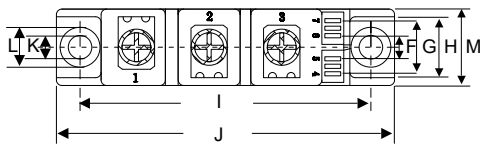
MCC Part Number	V_{RRM}	V_{RSM}
MD100K12D1	1200V	1300V
MD100K16D1	1600V	1700V





D1





DIMENSIONS					
DIM	INCHES		MM		NOTE
	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	0.571	0.610	14.50	15.50	
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	

Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

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Maximum Ratings

Symbol	Conditions	Values	Units
I_{FAV}	Single phase ,half wave 180° conduction Tc=109℃	100	A
I_{FSM}	t=10mS Tvj =45℃	2500	A
i^2t	t=10mS Tvj =45℃	31250	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(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	0.35	℃/W
$R_{th(c-s)}$	Module	0.1	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{FM}	T=25℃ I_F =300A	—	1.20	1.40	V
I_{RD}	T_{vj}=150℃ V_{RD}=V_{RRM}	—	—	5	mA

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Performance Curves

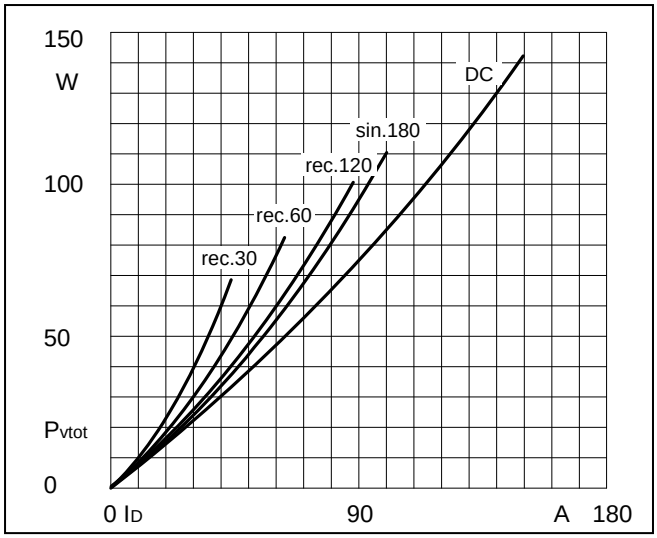


Fig1. Power dissipation

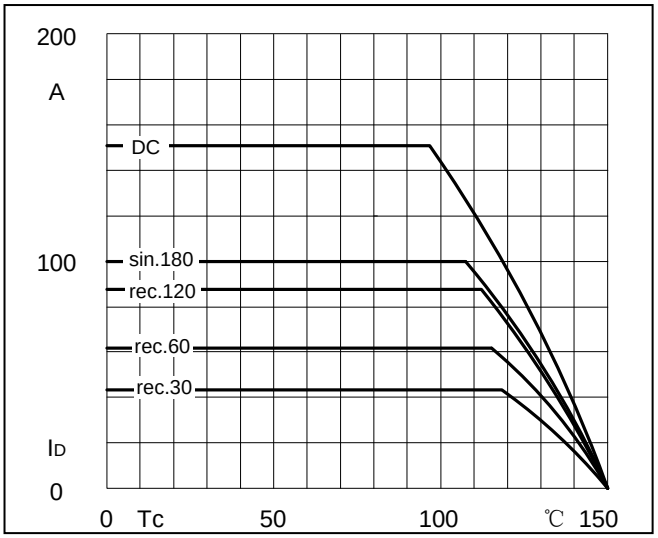


Fig2.Forward Current Derating Curve

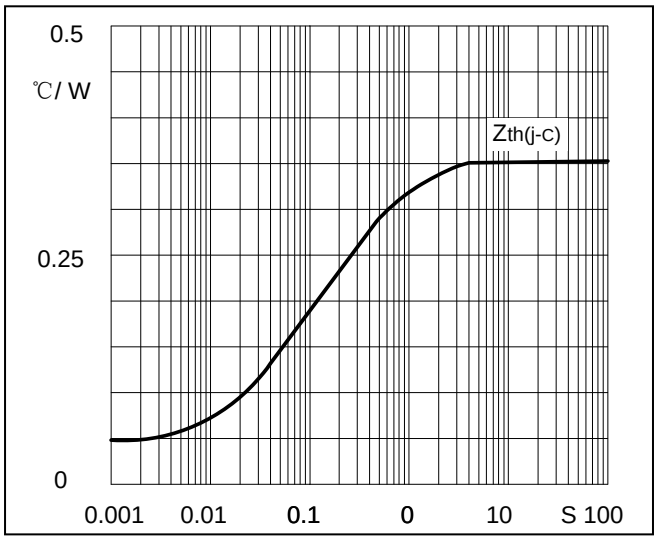


Fig3. Transient thermal impedance

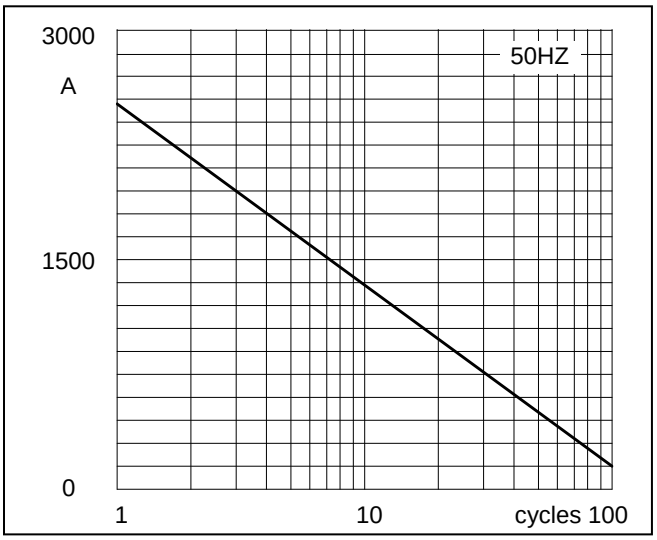


Fig4. Max Non-Repetitive Forward Surge Current

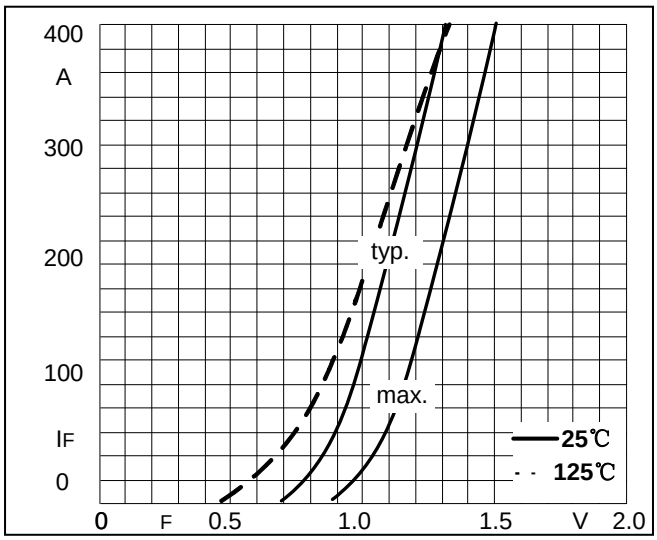


Fig5. Forward Characteristics

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Ordering Information

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

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