Features

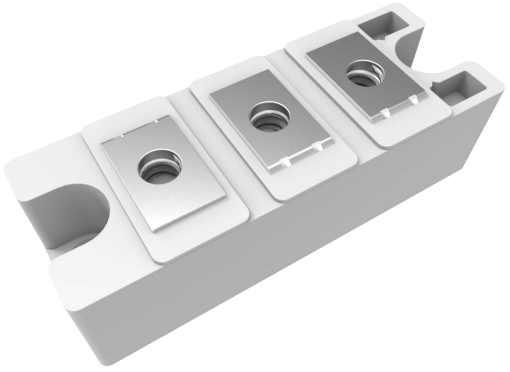
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Heat Transfer Through Aluminum Oxide DBC Ceramic Isolated Metal Baseplate
- Blocking voltage:800 to 1800V
- Glass passivated chip

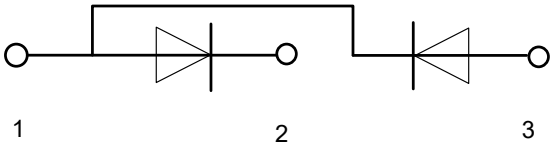
240 Amp GLASS PASSIVATED RECTIFIER DIODE MODULES 800 to 1800 Volts

Applications

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

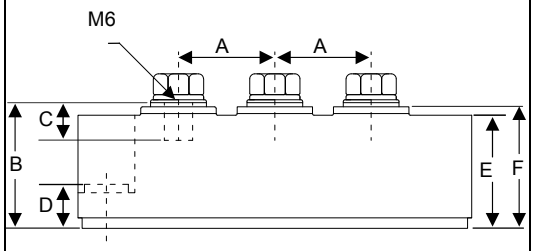
MCC Part Number	V_{RRM}	V_{RSM}
MD240C08D2	800V	900V
MD240C12D2	1200V	1300V
MD240C16D2	1600V	1700V
MD240C18D2	1800V	1900V

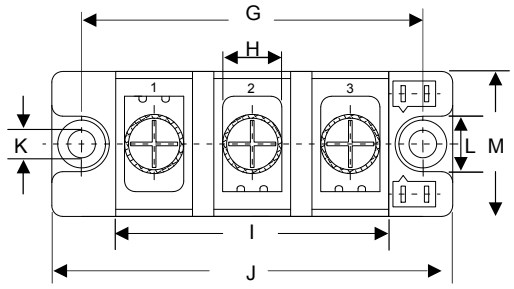




Note:1. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.

D2





DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.886	0.925	22.50	23.50	
B	1.161	1.201	29.50	30.50	
C	0.335	0.374	8.50	9.50	
D	0.315	0.350	8.00	8.90	
E	1.043	1.083	26.50	27.50	
F	1.122	1.161	28.50	29.50	
G	3.130	3.169	79.50	80.50	
H	0.492	0.531	12.50	13.50	
I	2.500	2.539	63.50	64.50	
J	3.681	3.720	93.50	94.50	
K	0.256		6.50		Φ
L	0.492	0.531	12.50	13.50	
M	1.319	1.358	33.50	34.50	

Maximum Ratings

Symbol	Conditions	Values	Units
I_{FAV}	Single phase ,half wave 180° conduction Tc=95℃	240	A
I_{FSM}	t=10mS Tvj =45℃	7550	A
i^2t	t=10mS Tvj =45℃	285000	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(M6)	5±15%	Nm
Ms	To heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	160	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.16	℃/W
$R_{th(c-s)}$	Module	0.05	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{FM}	T=25℃ I_F =300A	—	1.15	1.25	V
I_{RD}	T_{vj}=150℃ V_{RD}=V_{RRM}	—	—	9	mA
r_f	T_J=25℃		1.16		mΩ
V_{fO}			0.79		V

Performance Curves

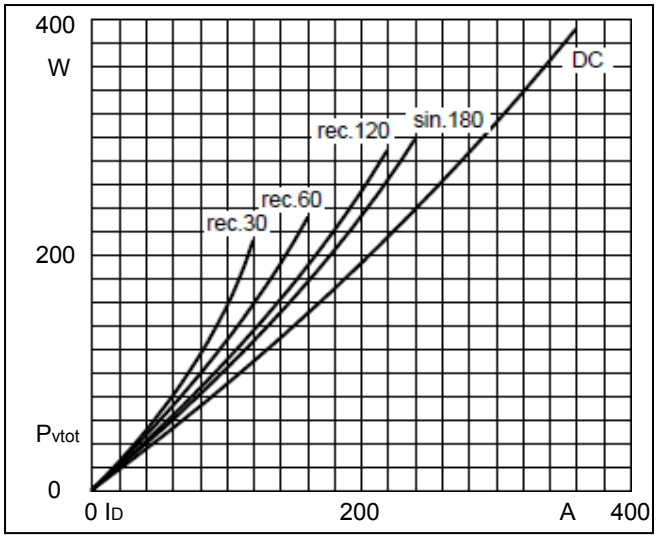


Fig1. Power dissipation

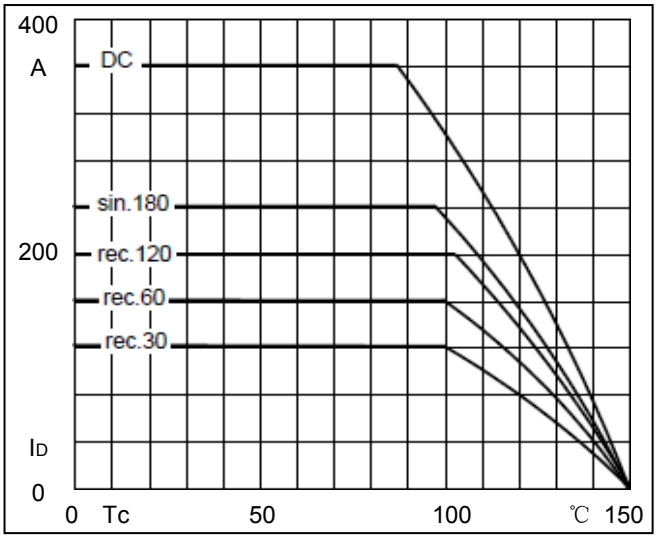


Fig2.Forward Current Derating Curve

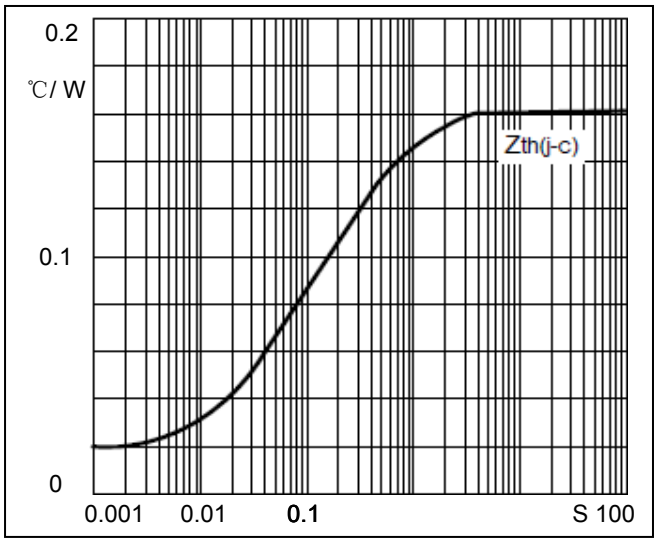


Fig3. Transient thermal impedance

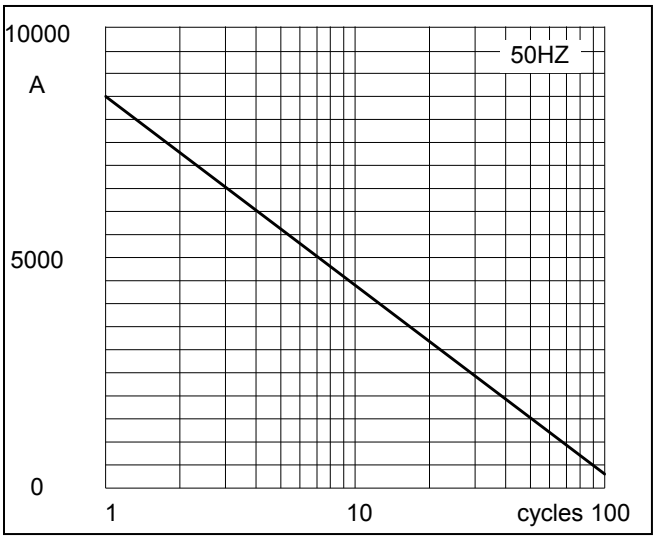


Fig4. Max Non-Repetitive Forward Surge Current

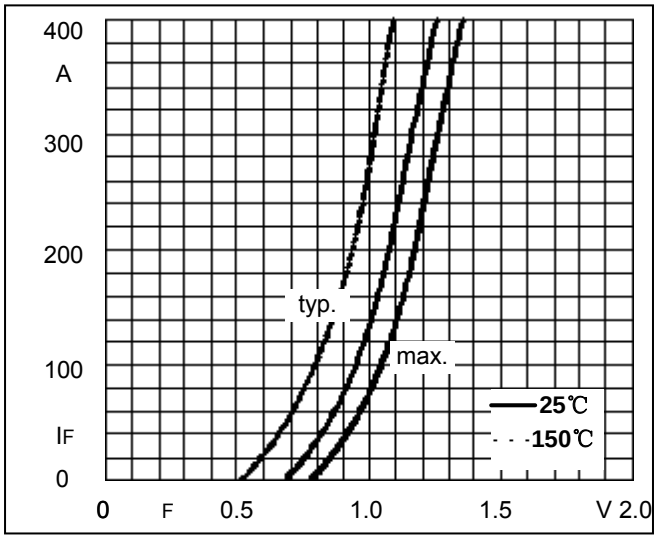


Fig5. Forward Characteristics

Ordering Information

Device	Packing
Part Number-BP	Bulk: 8PCS/BOX ;80PCS/CTN

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