

Features

- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)
- Blocking Voltage:800 to 1 1/2 00V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip

Applications

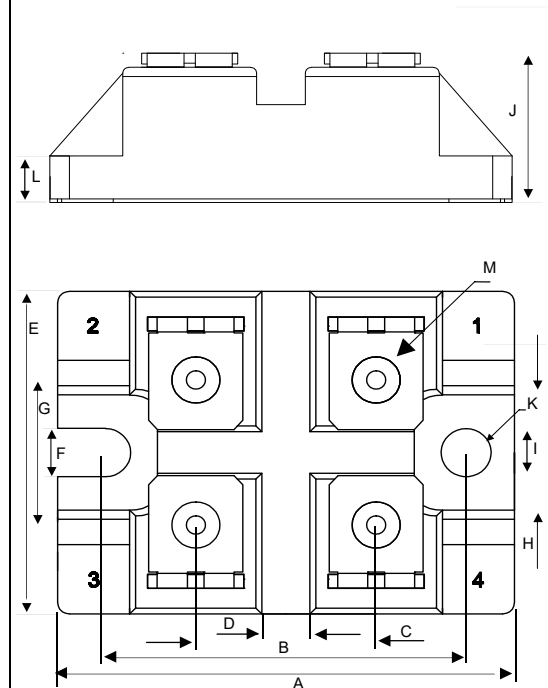
- Non-controllable rectifiers for AC/DC converters
- Line rectifiers for transistorized AC motor controllers
- Field supply for DC motors

MCC Part Number	V _{RRM}	V _{RSM}
MD50H08FJ	800V	900V
MD50H12FJ	1200V	1300V
MD50H16FJ	1600V	1700V



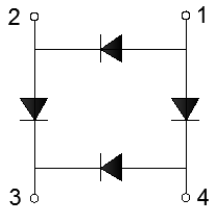
**50 Amp
GLASS PASSIVATED
RECTIFIER DIODE
MODULES
800~1 1/2 00 Volts**

FJ



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.484	1.508	37.50	38.50	
B	1.169	1.193	29.50	30.50	
C	0.579	0.602	14.50	15.50	
D	0.146	0.169	3.50	4.50	
E	1.091	1.114	27.50	28.50	
F	0.154	0.177	3.70	4.70	
G	0.484	0.508	12.10	13.10	
H	0.382	0.406	9.50	10.50	
I	0.130	0.154	3.10	4.10	
J	0.492	0.516	12.30	13.30	
K	0.165		4.20		∅
L	0.146	0.169	3.50	4.50	
M	0.157		4.00		

Circuit



Maximum Ratings

Symbol	Conditions	Values	Units
I _{FAV}	Single phase ,half wave 180° conduction T _c =104°C	50	A
I _{FSM}	t=10mS T _{vj} =45°C	650	A
i ² t	t=10mS T _{vj} =45°C	2100	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	To terminals(M4)	1±15%	Nm
M _s	To heatsink(M4)	1.2±15%	Nm
Weight	Module (Approximately)	27	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	0.6	°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 =100A	—	1.25	1.40	V
I _{RD}	T _{vj} =150°C V _{RD} =V _{RRM}	—	—	1	mA

Performance Curves

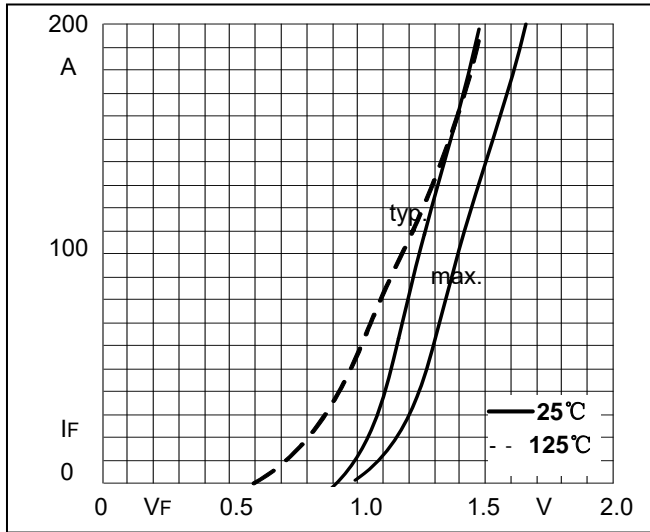


Fig1 Forward Characteristics

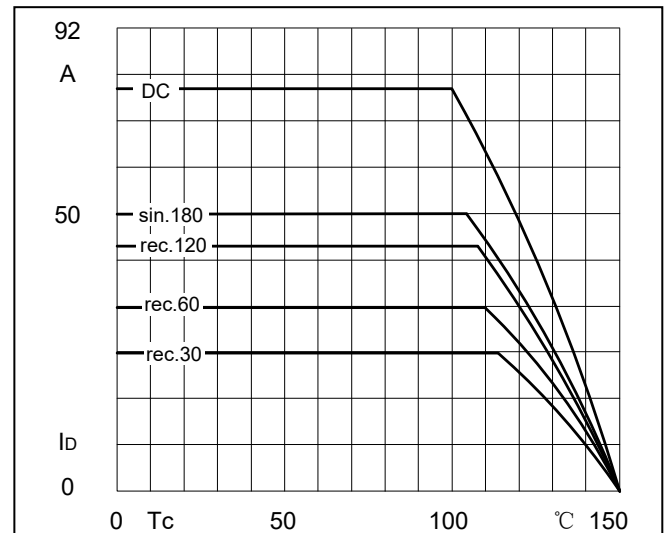


Fig2. Forward Current Derating Curve

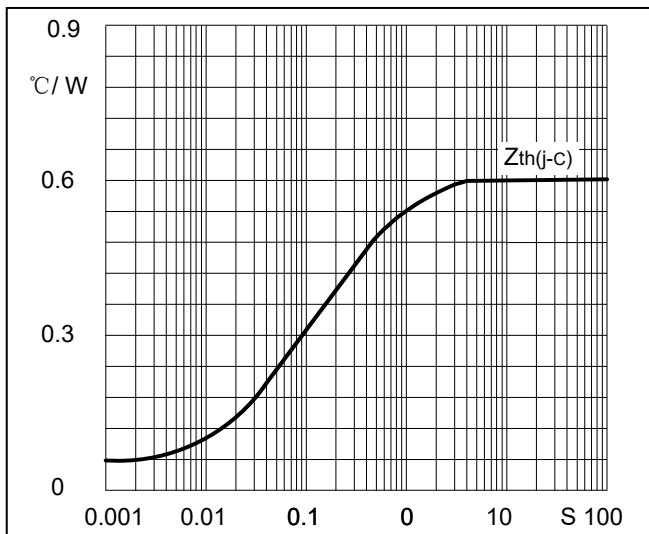


Fig3. Transient thermal impedance

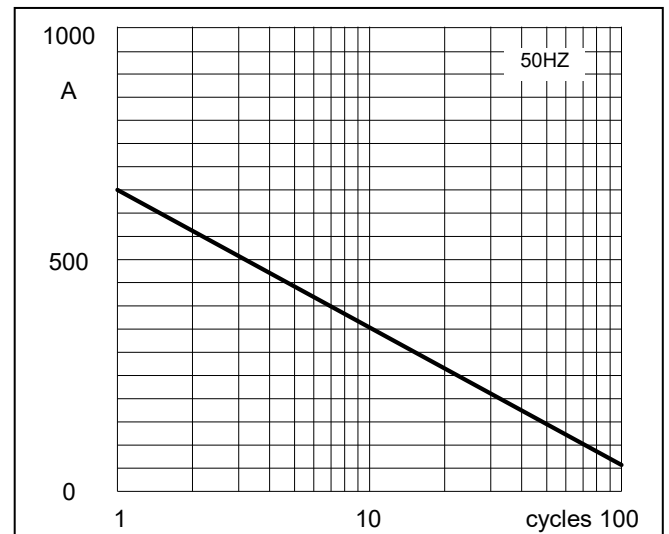


Fig4. Max Non-Repetitive Forward Surge Current

Ordering Information

Device	Packing
Part Number-BP	Bulk: 25PCS/BOX ;125PCS/CTN

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