

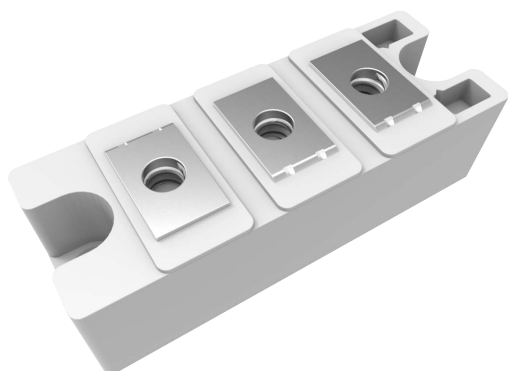
Features

- Glass Passivated Chip
- Blocking Voltage: 1600V
- Heat Transfer Through Aluminum Oxide Ceramic Isolated Metal Baseplate

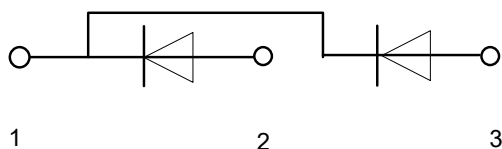
Applications

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

Part Number	V_{RRM}	V_{RSM}
MD240K16D2	1600V	1700V

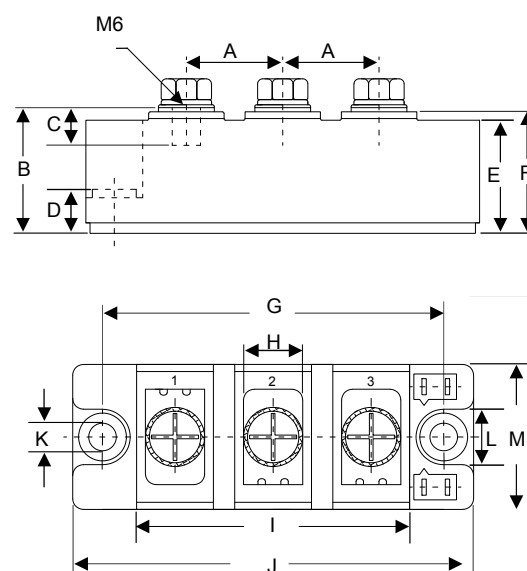


Circuit



240 Amp Glass Passivated Rectifier Diode Modules 1600 Volts

D2



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 $T_C=95^{\circ}\text{C}$	240	A
I_{FSM}	$t=10\text{mS}$ $T_J=45^{\circ}\text{C}$	7550	A
i^2t	$t=10\text{mS}$ $T_J=45^{\circ}\text{C}$	285000	A^2s
V_{isol}	a.c.50HZ;r.m.s.;1min	3000	V
T_J		-40 to 150	$^{\circ}\text{C}$
T_{stg}		-40 to 125	$^{\circ}\text{C}$
Mt	to Terminals(M6)	$5\pm 15\%$	Nm
Ms	to Heat Sink(M6)	$5\pm 15\%$	Nm
Weight	Module (Approximately)	160	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per Diode	0.16	$^{\circ}\text{C/W}$
$R_{th(c-s)}$	Module	0.05	$^{\circ}\text{C/W}$

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{FM}	$T_J=25^{\circ}\text{C}$; $I_F=300\text{A}$		1.15	1.25	V
I_{RD}	$T_J=150^{\circ}\text{C}$; $V_{RD}=V_{RRM}$			9	mA
r_F	$T_J=25^{\circ}\text{C}$		1.16		$\text{m}\Omega$
	$T_J=150^{\circ}\text{C}$		1.17		$\text{m}\Omega$
V_{FO}	$T_J=25^{\circ}\text{C}$		0.79		V
	$T_J=150^{\circ}\text{C}$		0.67		V

Performance Curves

Fig1. Power dissipation

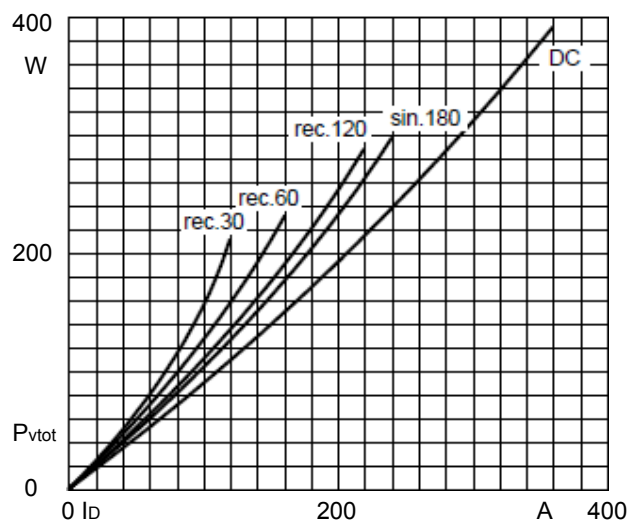


Fig2. Forward Current Derating Curve

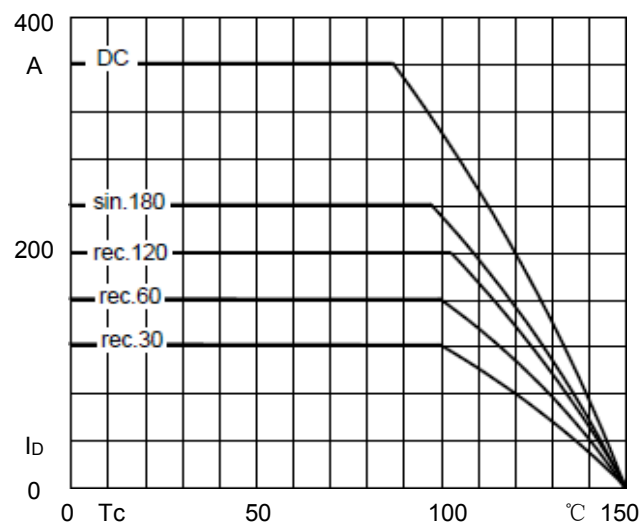


Fig3. Transient thermal impedance

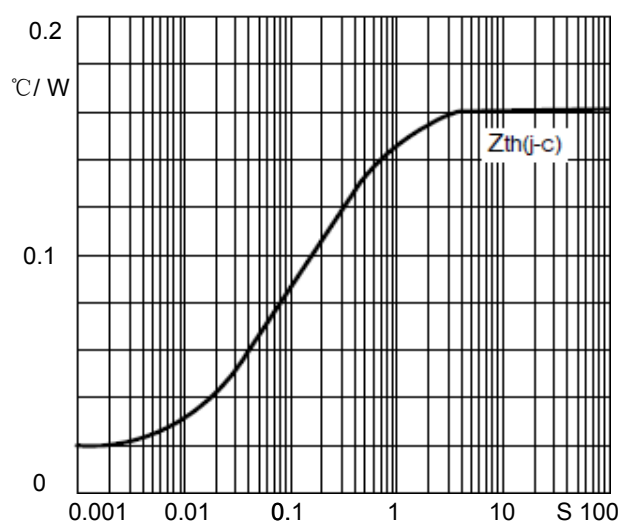


Fig4. Max Non-Repetitive Forward Surge Current

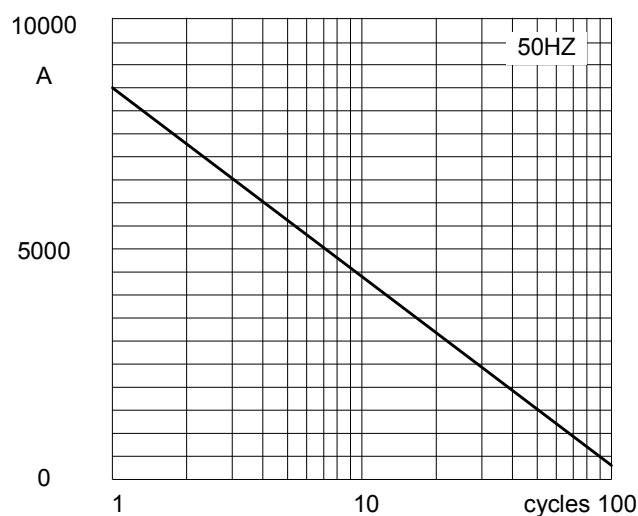
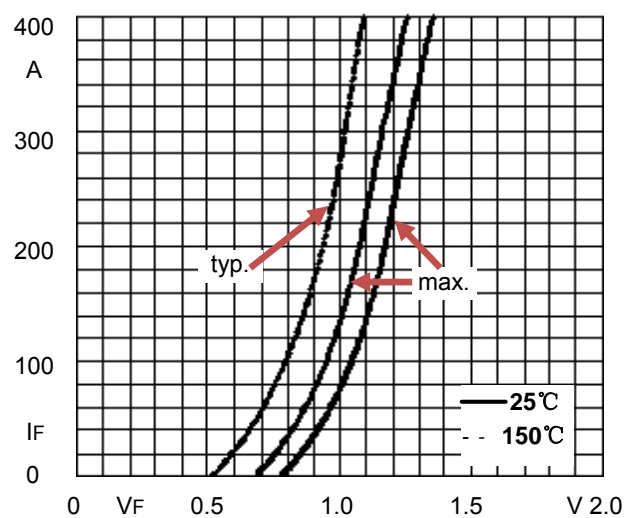


Fig5. Forward Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk:8pcs/Box,80pcs/Carton

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