

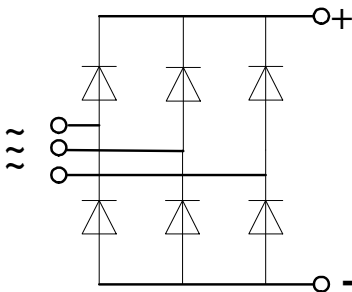
**Features**

- 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:1600V
- Glass passivated chip

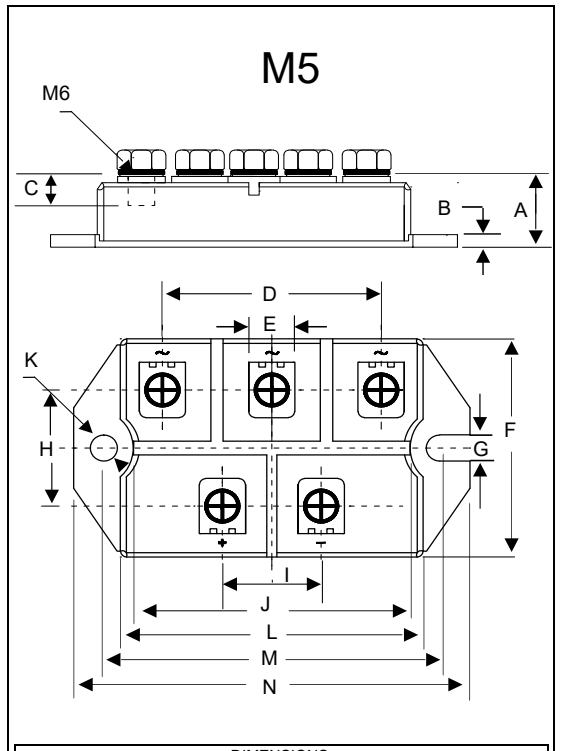
**Applications**

- Three phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

MCC Part Number	$V_{RRM}$	$V_{RSM}$
MD160S16M5	1600V	1700V



**160 Amp  
GLASS PASSIVATED  
THREE PHASE  
RECTIFIER BRIDGE  
160 Volts**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.650	0.689	16.50	17.50	
B	0.098	0.138	2.50	3.50	
C	0.256	0.295	6.50	7.50	
D	2.028	2.067	51.50	52.50	
E	0.453	0.492	11.50	12.50	
F	2.106	2.146	53.50	54.50	
G	0.236	0.276	6.00	7.00	
H	1.043	1.083	26.50	27.50	
I	0.965	1.004	24.50	25.50	
J	2.579	2.618	65.50	66.50	
K	0.256		6.50		Φ
L	2.815	2.854	71.50	72.50	
M	3.130	3.169	79.50	80.50	
N	3.681	3.720	93.50	94.50	

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

### Maximum Ratings

Symbol	Conditions	Values	Units
$I_D$	Three phase, full wave $T_c=100^\circ\text{C}$	160	A
$I_{FSM}$	$t=10\text{mS}$ $T_{vj}=45^\circ\text{C}$	1800	A
$i^2t$	$t=10\text{mS}$ $T_{vj}=45^\circ\text{C}$	16200	$\text{A}^2\text{s}$
$V_{isol}$	a.c.50HZ;r.m.s.;1min	3000	V
$T_{vj}$		-40 to +150	$^\circ\text{C}$
$T_{stg}$		-40 to +125	$^\circ\text{C}$
$M_t$	To terminals(M6)	$5\pm 15\%$	Nm
$M_s$	To heatsink(M6)	$5\pm 15\%$	Nm
Weight	Module (Approximately)	194	g

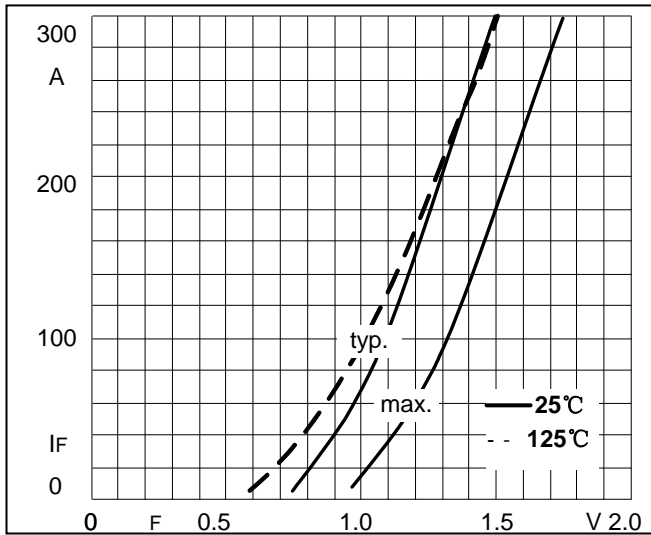
### Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.65	$^\circ\text{C/W}$
$R_{th(c-s)}$	Module	0.03	$^\circ\text{C/W}$

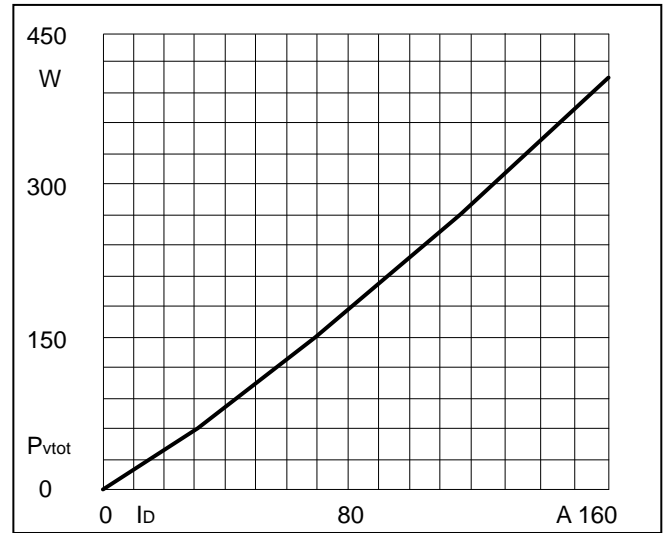
### Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
$V_{FM}$	$T=25^\circ\text{C}$ $I_F=300\text{A}$	—	1.50	1.75	V
$I_{RD}$	$T_{vj}=25^\circ\text{C}$ $V_{RD}=V_{RRM}$ $T_{vj}=150^\circ\text{C}$ $V_{RD}=V_{RRM}$	—	—	0.5 6	mA mA

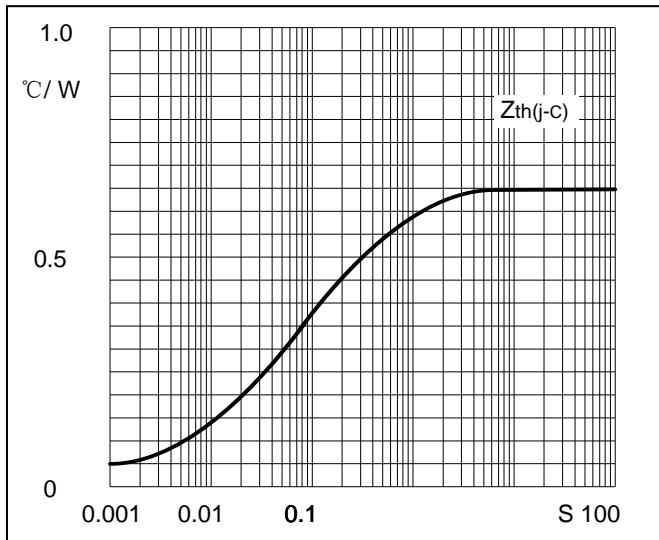
**Performance Curves**



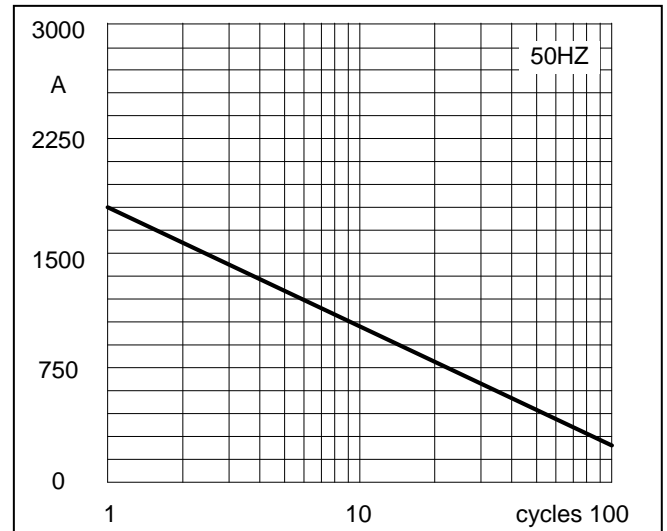
**Fig1. Forward Characteristics**



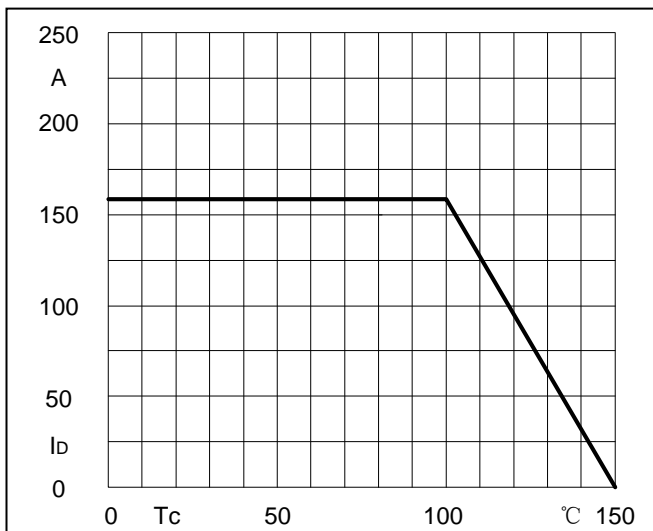
**Fig2. Power dissipation**



**Fig3. Transient thermal impedance**



**Fig4. Max Non-Repetitive Forward Surge Current**



**Fig5. Forward Current Derating Curve**

## Ordering Information

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

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