

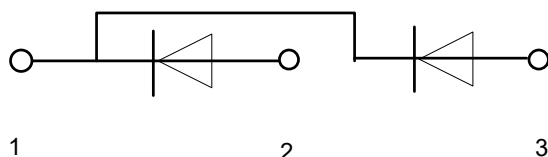
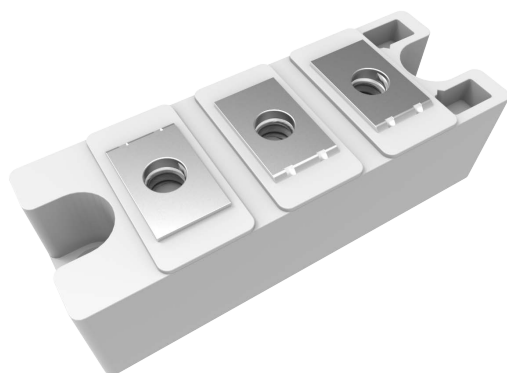
Features

- 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

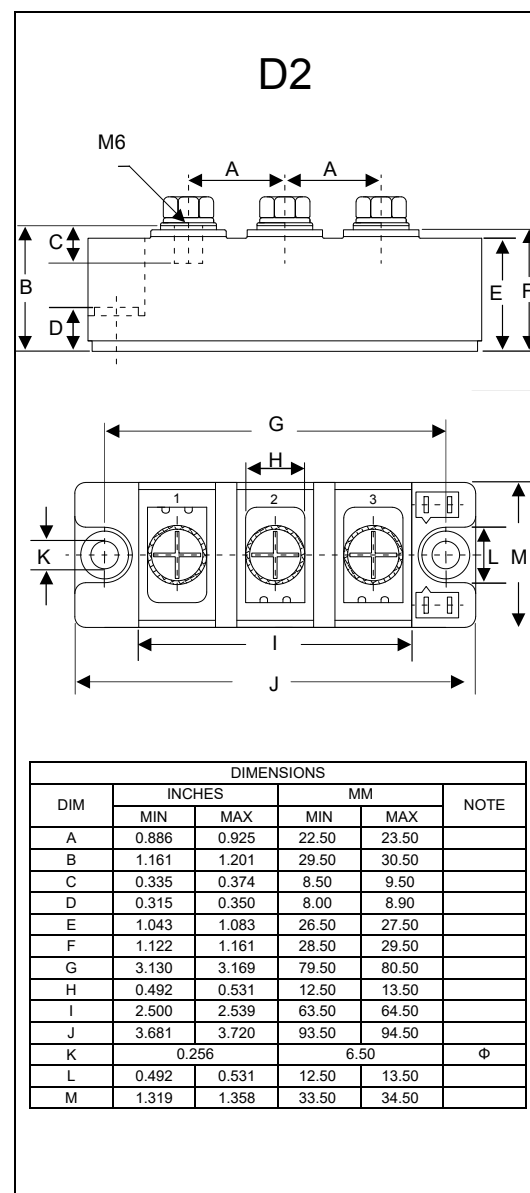
- Non-Controllable Rectifiers for AC/AC Converters
- Line Rectifiers for Transistorized AC Motor Controllers
- Field Supply for DC Motors

MCC Part Number	V_{RRM}	V_{RSM}
MD165K16D2	1600V	1700V



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

165 Amp GLASS PASSIVATED RECTIFIER DIODE MODULES 1600 Volts



Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180° conduction Tc=101℃	165	A
IFSM	t=10mS Tvj =45℃	6000	A
i ² t	t=10mS Tvj =45℃	180000	A ² S
V _{isol}	a.c.50HZ;r.m.s.;1min	3000	V
T _{vj}		-40 to +150	℃
T _{stg}		-40 to +125	℃
Mt	T terminals(M6)	5±15%	Nm
Ms	T heatsink(M6)	5±15%	Nm
Weight	Module (Approximately)	160	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per diode	0.21	℃/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	—	1.20	1.40	V
I _{RD}	T _{vj} =150℃ V _{RD} =V _{RRM}	—	—	9	mA
r _f	T _j =25℃		1.25		mΩ
V _{fO}			0.82		V

Performance Curves

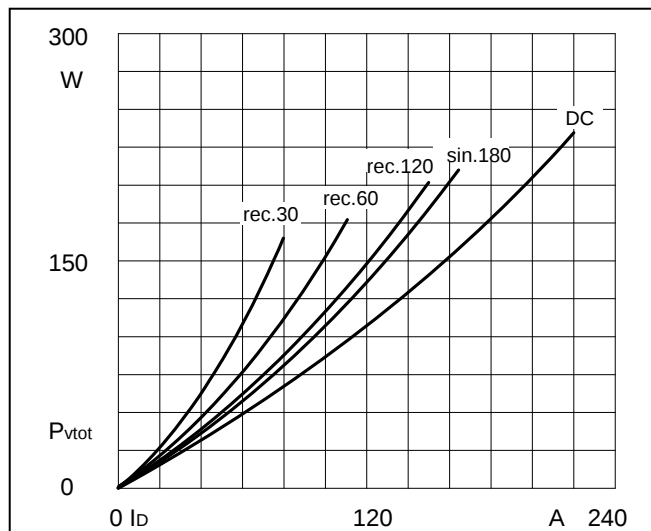


Fig1. Power dissipation

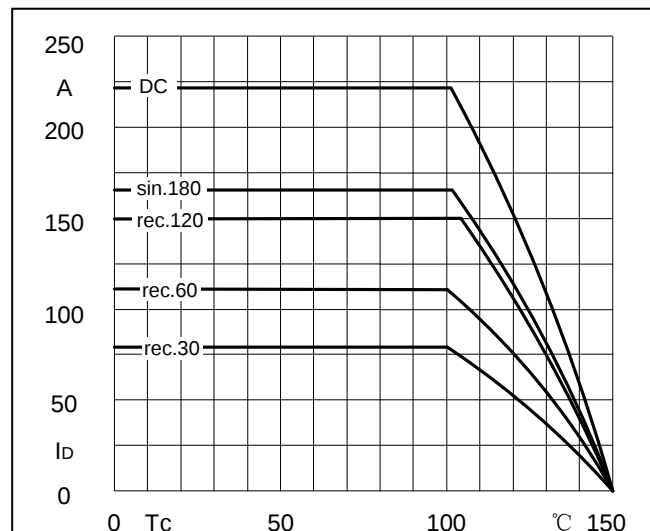


Fig2. Forward Current Derating Curve

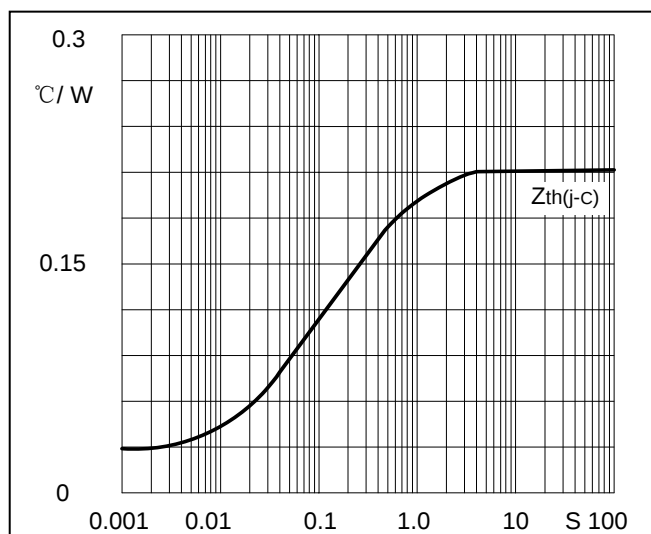


Fig3. Transient thermal impedance

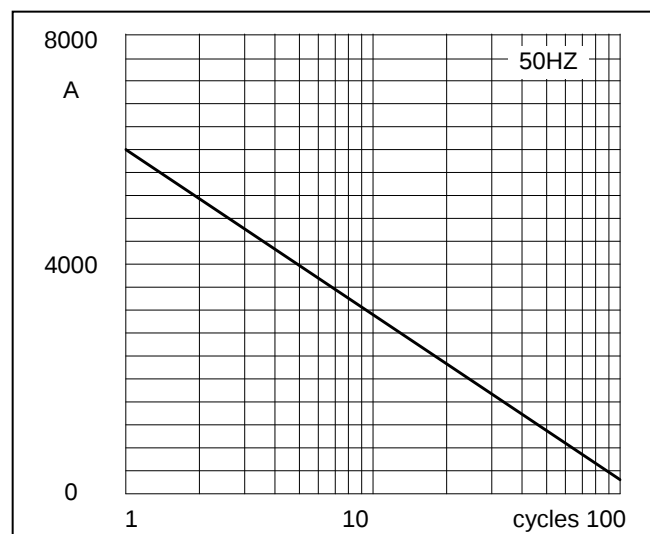


Fig4. Max Non-Repetitive Forward Surge Current

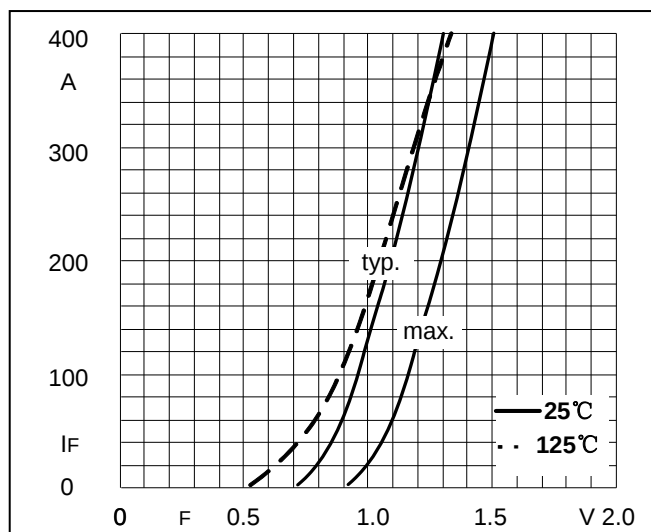


Fig5. Forward Characteristics

Ordering Information

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

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