



Glass Passivated Rectifier Diode Modules

VRRM 2200V
IFAV 165 A

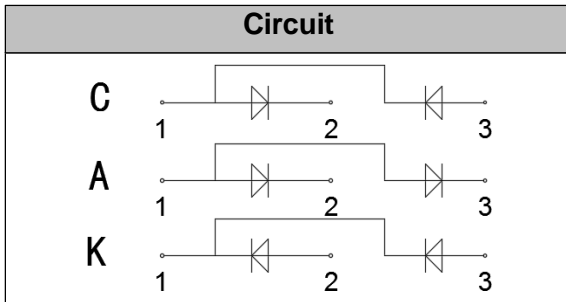
Applications

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

Features

- Blocking voltage:2200V
- Heat transfer through aluminum oxide DBC ceramic isolated metal baseplate
- Glass passivated chip
- UL recognized applied for file no. E230084

Circuit



Module Type

TYPE			VRRM	VRSM
MD165C22D2	MD165A22D2	MD165K22D2	2200V	2300V

Maximum Ratings

Symbol	Conditions	Values	Units
IFAV	Single phase ,half wave 180°conduction Tc=101°C	165	A
IFSM	t=10mS Tvj =45°C	6000	A
i ² t	t=10mS Tvj =45°C	180000	A ² s
Visol	a.c.50HZ;r.m.s.;1min	3000	V
Tvj		-40 to +150	°C
Tstg		-40 to +125	°C
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
Rth(j-c)	Per diode	0.20	°C/W
Rth(c-s)	Per Module	0.05	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
VFM	T=25°CIF =300A	—	1.10	1.20	V
IRD	Tvj=150°CVRD=VRRM	—	—	9	mA
r _f	T _j =25°C		1.25		mΩ
V _{fO}			0.82		V



Performance Curves

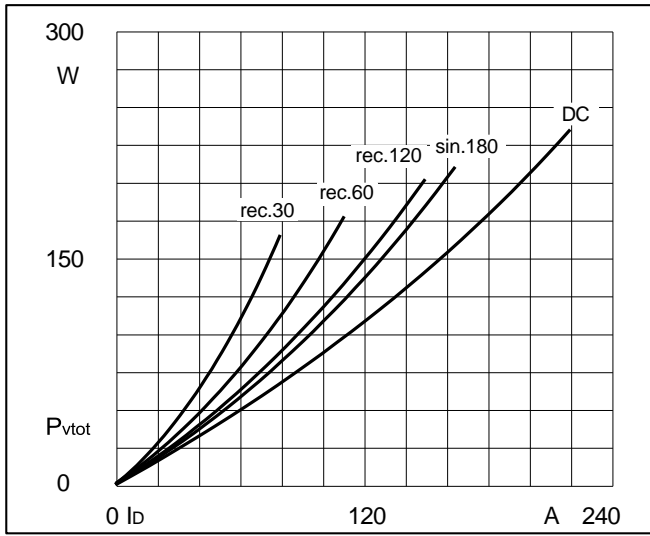


Fig1. Power dissipation

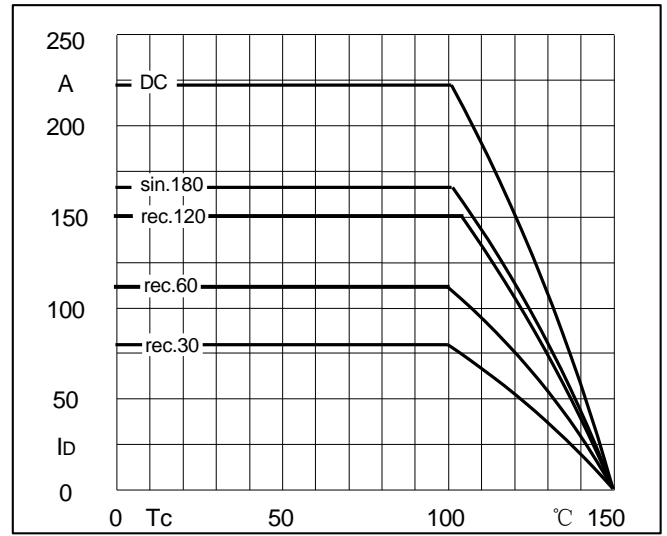


Fig2. Forward Current Derating Curve

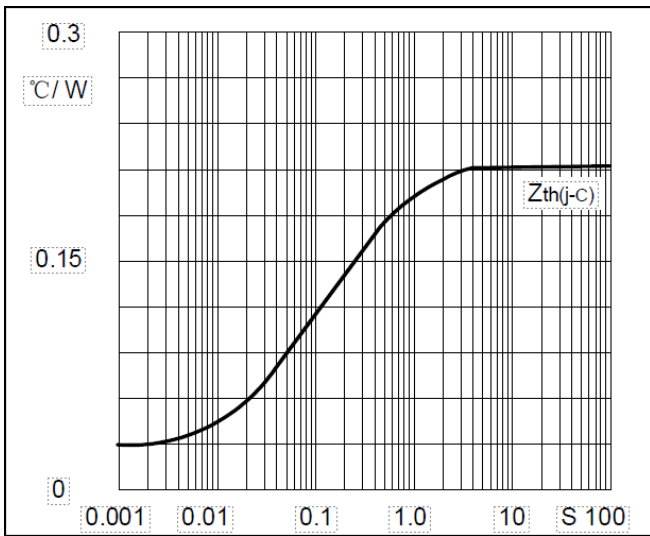


Fig3. Transient thermal impedance

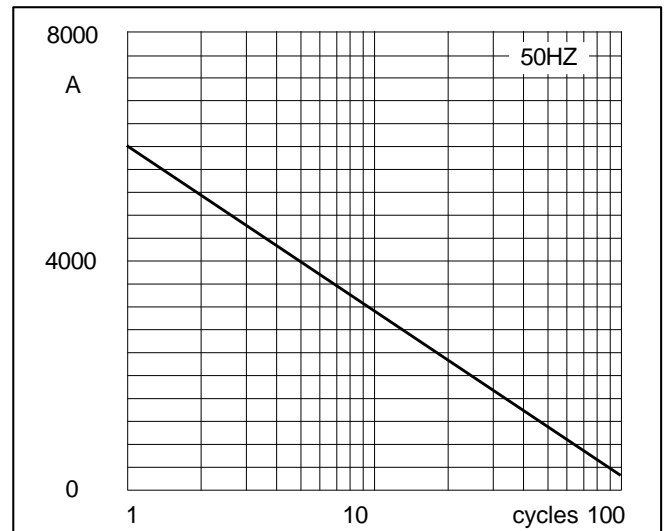


Fig4. Max Non-Repetitive Forward Surge Current

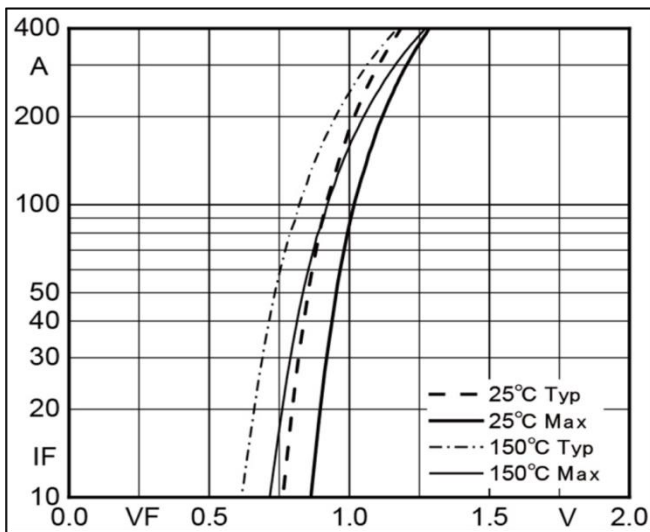
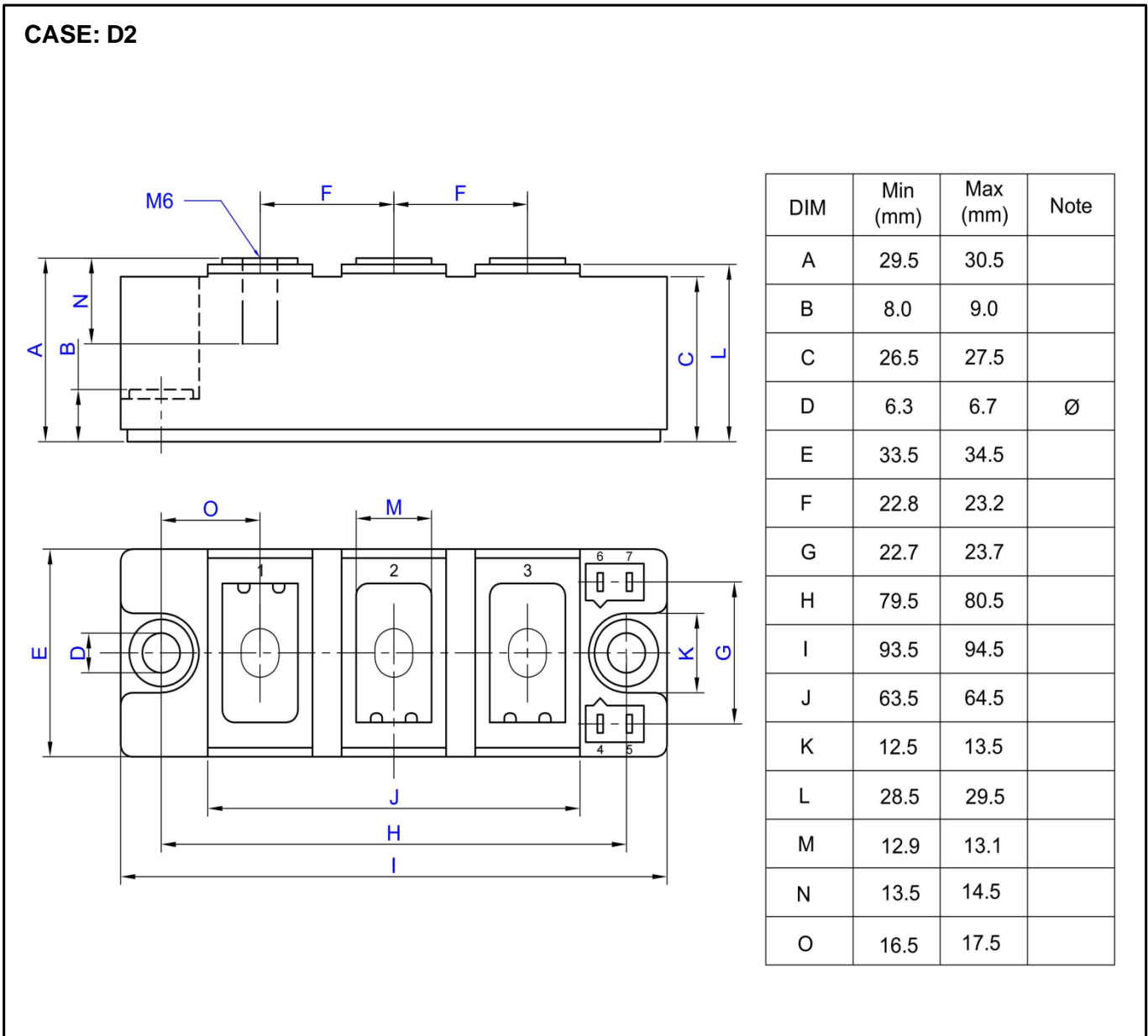


Fig5. Forward Characteristics



Package Outline Information



Packing Standard

Item	Length: A(mm)	Width: B(mm)	Height: C (mm)	Quantity (PCS)
Inner Box	276	258	48	8
Outer Carton	545	295	240	80



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