

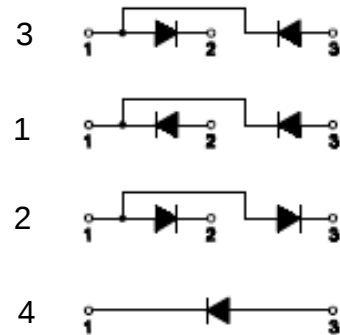
Features

- Blocking voltage: 800 to 2000V
- Heat transfer through aluminum oxide DBC Ceramic isolated metal baseplate
- Industrial standard package
- Thick copper baseplate
- 2500 V_{RMS} isolating voltage

Typical Applications

- Power Supplies
- AC&DC Motor Drivers
- Bridge Circuits
- Welders
- Battery Supplier

A



Module Type

Type	V _{DRM}	V _{RSM}
JA1/JA2/JA3/JA4M165-80	800V	900V
JA1/JA2/JA3/JA4M165-120	1200V	1300V
JA1/JA2/JA3/JA4M165-160	1600V	1700V
JA1/JA2/JA3/JA4M165-180	1800V	1900V
JA1/JA2/JA3/JA4M165-200	2000V	2100V

Maximum Ratings

Parameters	Symbol	Test Conditions	Values	Unit
State the average current	I _{F(AV)}	Single phase ,half wave 180°conduction T _c =85°C	165	A
Surge forward current	I _{FSM}	t=10mS T _J =45°C	6000	A
Maximum I ² t for fusing	I ² t	t=10mS T _J =45°C	180000	A ² s
Isolation Breakdown Voltage(R.M.S)	Visol	Ac.50Hz; R.M.S; 1min	2500	V
		Ac.50Hz; R.M.S; 1sec	3500	V
Operating Junction Temperature	T _J		-40~+150	°C
Storage Temperature	T _{stg}		-40~+125	°C

Mounting Torque	Mt	To terminals(M6)	5±15%	Nm
	Ms	To heatsink(M6)	5±15%	
Module(Approximately)	Weight		160	g

Electrical Characteristics

Parameters	Symbol	Test Conditions	Values			Unit
			Min.	Typ.	Max.	
Maximum Forward voltage drop	V_{FM}	$T=25^{\circ}\text{C}$ $I_F=165\text{A}$	—	1.05	1.25	V
Maximum Repetitive Peak Reverse Current	I_{RRM}	$T_J=25^{\circ}\text{C}$ $V_{RD}=V_{RRM}$	—	—	20	uA
		$T_J=150^{\circ}\text{C}$ $V_{RD}=V_{RRM}$	—	—	5	mA

Thermal Characteristics

Parameters	Symbol	Test Conditions	Values	Unit
Maximum internal thermal resistance, junction to case per leg	$R_{th(J-C)}$	Per diode	0.21	$^{\circ}\text{C}/\text{W}$
Typical thermal resistance, case to heatsink per module	$R_{th(C-S)}$	Module	0.05	$^{\circ}\text{C}/\text{W}$

Performance Curves

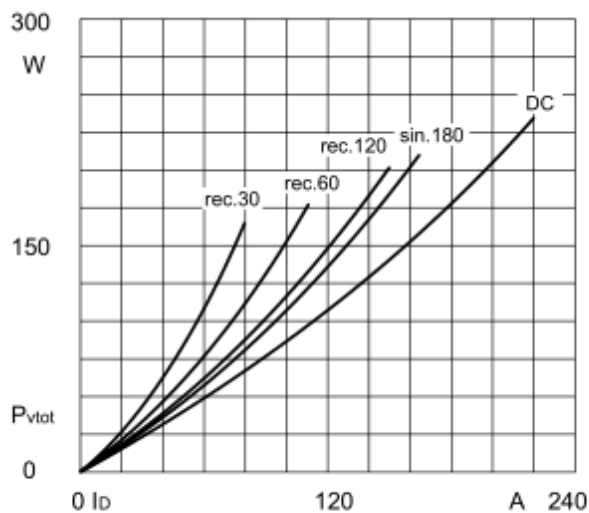


Fig1. Power dissipation

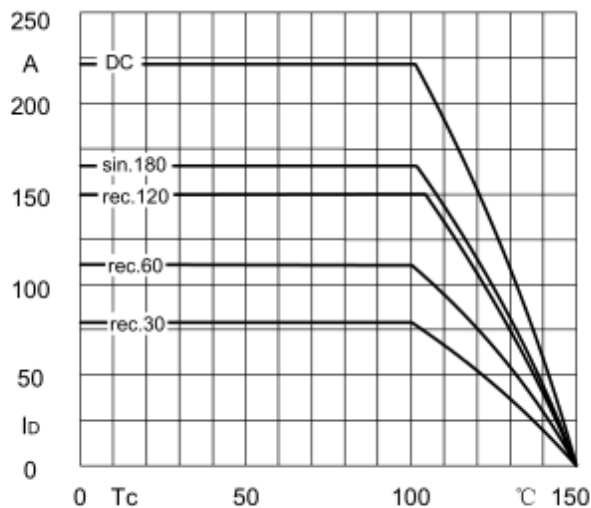


Fig2. Forward Current Derating Curve

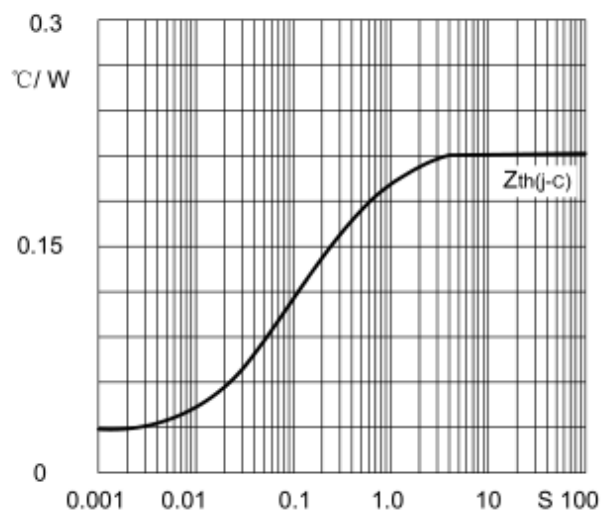


Fig3. Transient thermal impedance

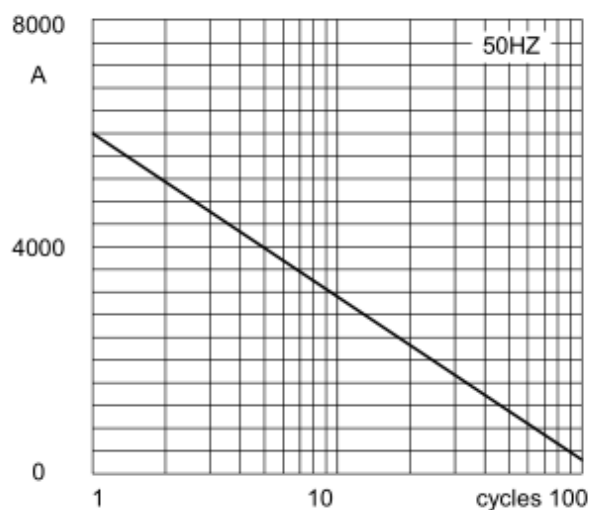


Fig4. Max Non-Repetitive Forward Surge Current

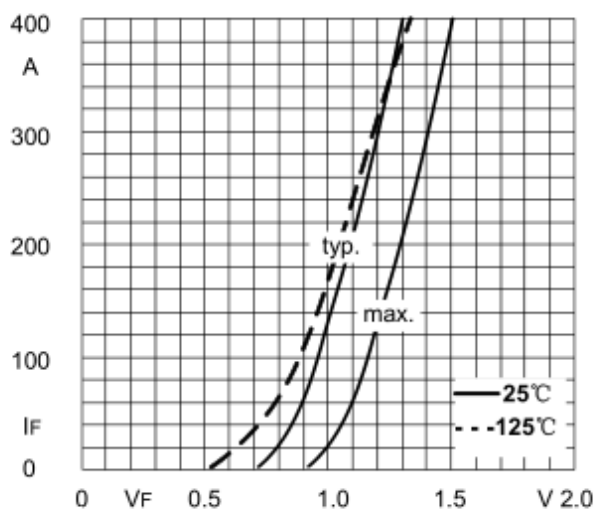


Fig5. Forward Characteristics

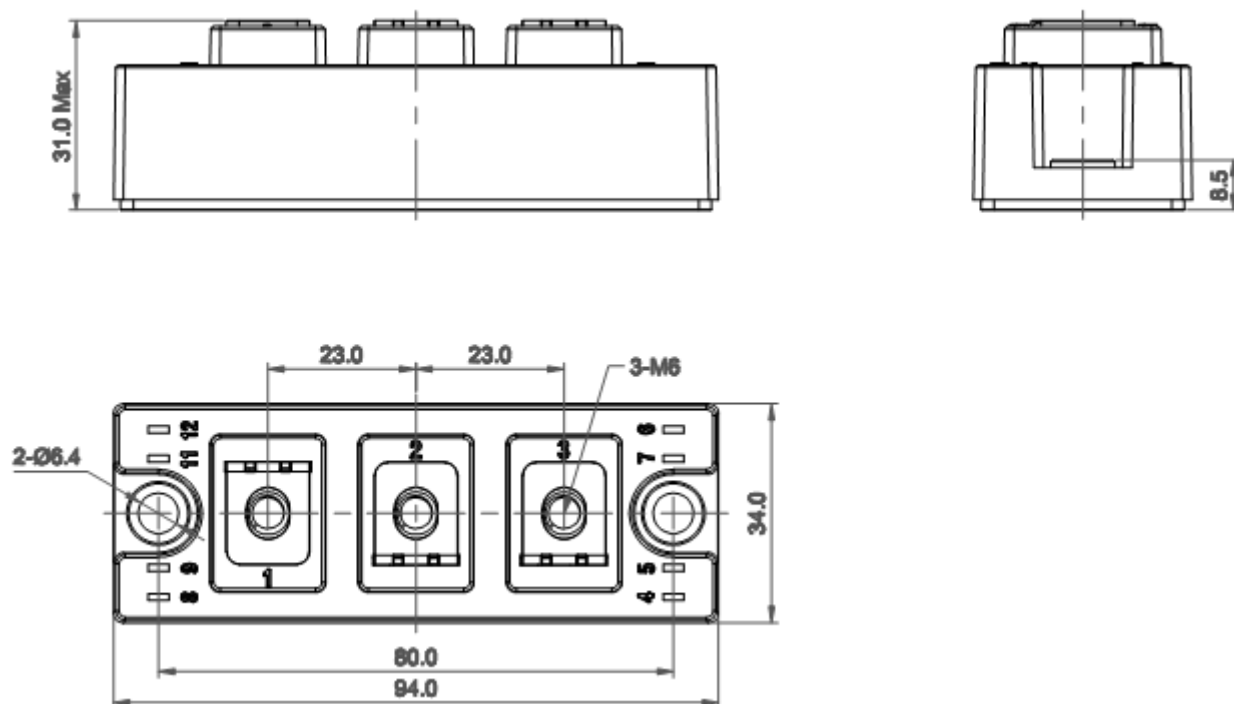
Ordering Information Tabel

Device code

J	A1M	165	-	16
①	②	③		④

- ① JH's power module
- ② Circuit configuration, M-High Power Products Diode Modules
- ③ Maximum average forward current, A
- ④ Voltage code 1600v

A Package Outline Information



Dimensions in mm

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