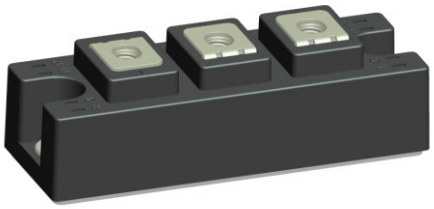
Features

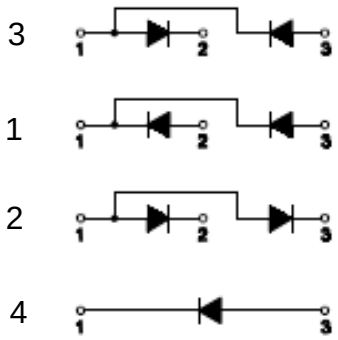
- Blocking voltage：800 to 2000V
- Heat transfer through aluminum oxide DBC Ceramic isolated metal baseplate
- Industrial standard package
- Thick copper baseplate
- 2500 V_{RMS} isolating voltage

Typical Applications

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

A





Module Type

Type	V_{DRM}	V_{RSM}
JA1/JA2/JA3/JA4M90-80	800V	900V
JA1/JA2/JA3/JA4M90-120	1200V	1300V
JA1/JA2/JA3/JA4M90-160	1600V	1700V
JA1/JA2/JA3/JA4M90-180	1800V	1900V
JA1/JA2/JA3/JA4M90-200	2000V	2100V

Maximum Ratings

Parameters	Symbol	Test Conditions	Values	Unit
State the average current	$I_{F(AV)}$	Single phase ,half wave 180°conduction Tc=85˚C	90	A
Surge forward current	I_{FSM}	t=10mS T_J =45˚C	2000	A
Maximum I^2t for fusing	I^2t	t=10mS T_J =45˚C	20000	A^2s
Isolation Breakdown Voltage(R.M.S)	Visol	Ac.50H_Z；R.M.S；1min	2500	V
		Ac.50H_Z；R.M.S；1sec	3500	V
Operating Juntion Temperature	T_J		-40~+150	˚C
Storage Temperature	Tstg		-40~+125	˚C

Mounting Torque	Mt	To terminals(M5)	3±15%	Nm
	Ms	To heatsink(M6)	5±15%	
Module(Approximately)	Weight		100	g

Electrical Characteristics

Parameters	Symbol	Test Conditions	Values			Unit
			Min.	Typ.	Max.	
Maximum Forward voltage drop	V_{FM}	T=25℃ IF =90A	—	0.95	1.05	V
Maximum Repetitive Peak Reverse Current	I_{RRM}	T_J=25℃ V_{RD}=V_{RRM}	—	—	20	uA
		T_J=150℃ V_{RD}=V_{RRM}	—	—	5	mA

Thermal Characteristics

Parameters	Symbol	Test Conditions	Values	Unit
Maximum internal thermal resistance, junction to case per leg	$Rth_{(J-C)}$	Per diode	0.35	℃/W
Typical thermal resistance, case to heatsink per module	$Rth_{(C-S)}$	Module	0.1	℃/W

Performance Curves

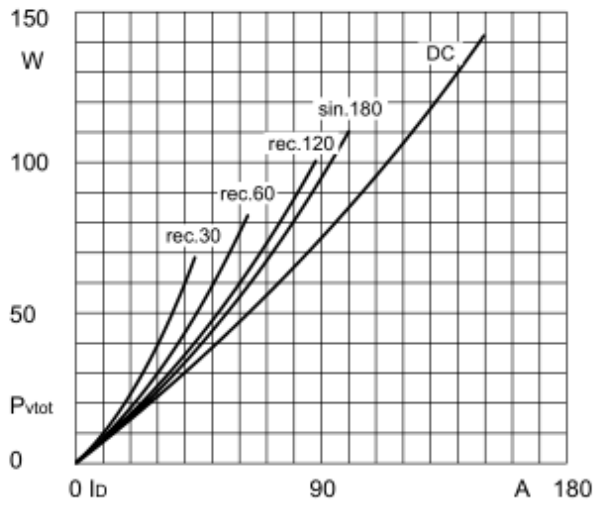


Fig1. Power dissipation

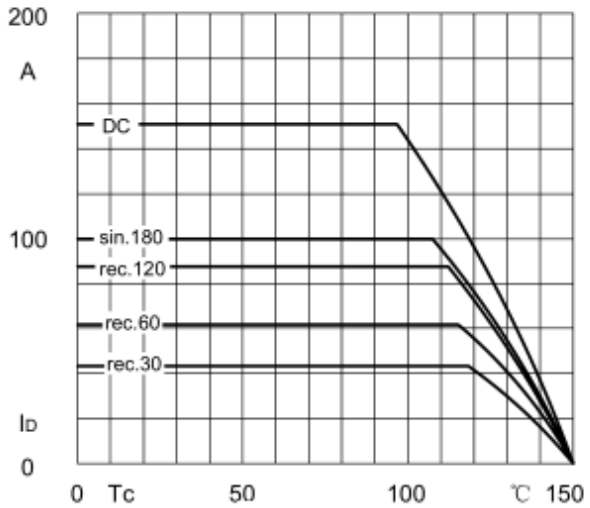


Fig2.Forward Current Derating Curve

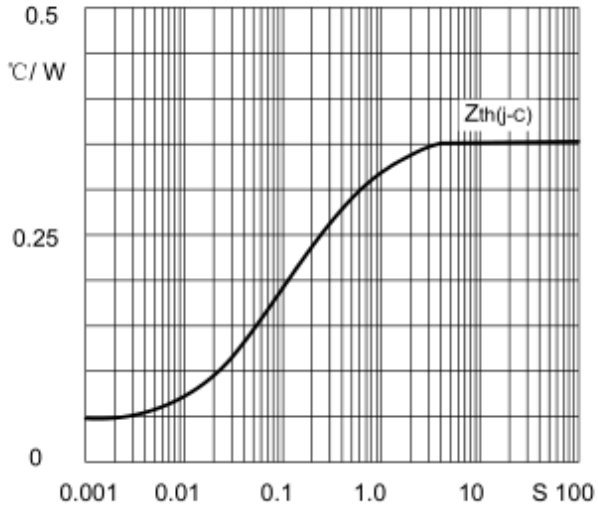


Fig3. Transient thermal impedance

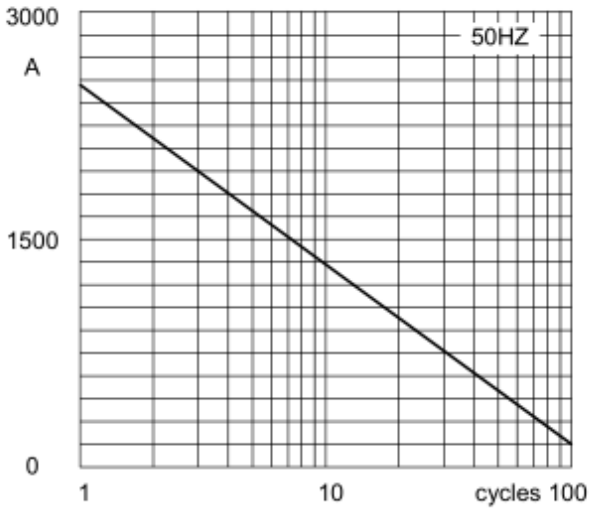


Fig4. Max Non-Repetitive Forward Surge Current

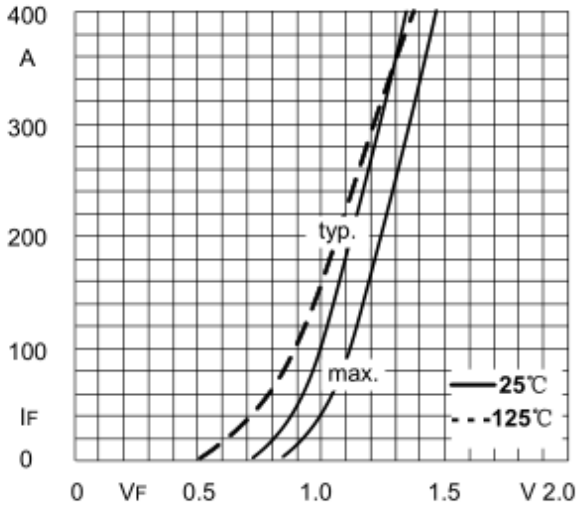


Fig5. Forward Characteristics

Ordering Information Tabel

Device code

J	A1M	90	-	160
①	②	③		④

① JH's power module

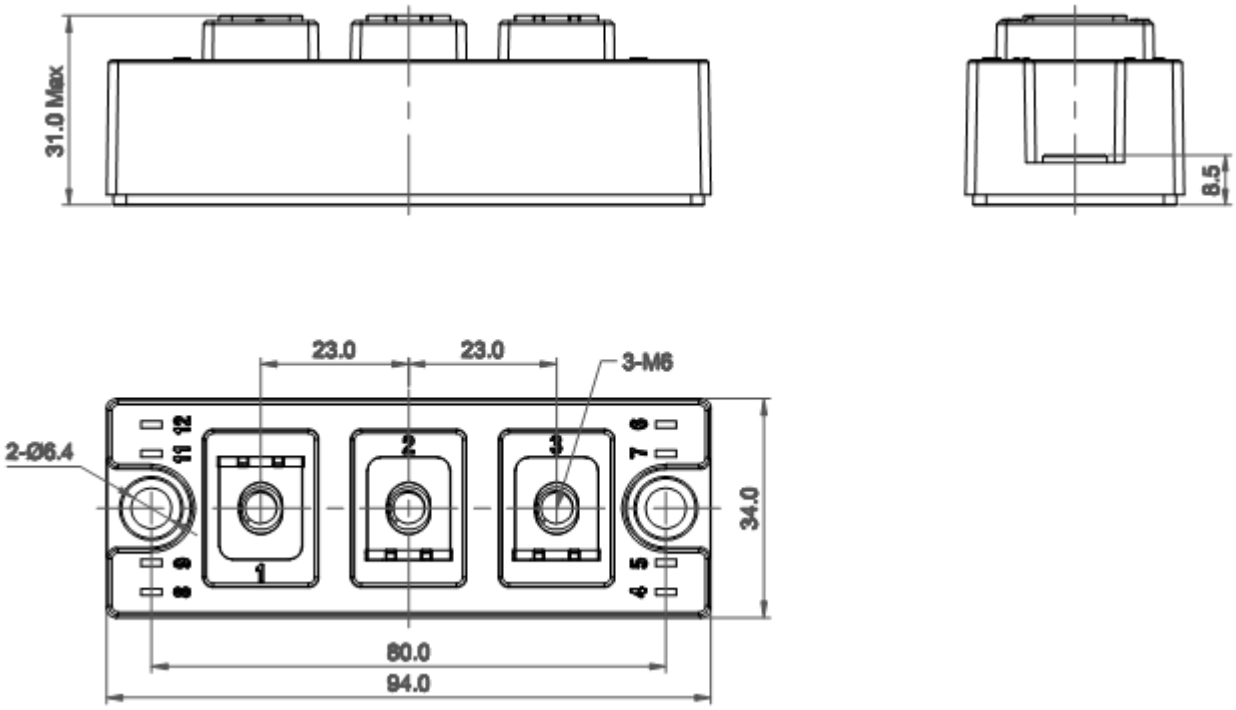
② Circuit configuration, M-High Power Products Diode Modules

③ Maximum average forward current, A

④ Voltage code 1600v

Package Outline Information

A PACKAG



Dimensions in mm

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