

**JBY High Power Products
Diode Modules**

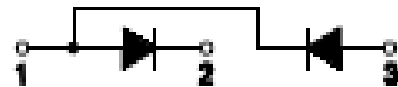
Features

- 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



Module Type		
Type	V _{DRM}	V _{RSM}
JKD106-08	800V	900V
JKD106-12	1200V	1300V
JKD106-16	1600V	1700V
JKD106-18	1800V	1900V
JKD106-20	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 =80°C	110	A
Surge forward current	I _{FSM}	t=10mS T _J =45°C	3000	A
Maximum I ² t for fusing	I ² t	t=10mS T _J =45°C	45000	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(M5)	$3 \pm 15\%$	Nm
	Ms	To heatsink(M6)	$5 \pm 15\%$	
Module(Approximately)	Weight		100	g

Electrical Characteristics

Parameters	Symbol	Test Conditions	Values			Unit
			Min.	Typ.	Max.	
Maximum Forward voltage drop	V_{FM}	$T=25^{\circ}\text{C}$ $I_F=110\text{A}$	—	1.00	1.25	V
Maximum Repetitive Peak Reverse Current	I_{RRM}	$T_J=25^{\circ}\text{C}$ $V_{RD}=V_{RRM}$	—	—	15	μA
		$T_J=150^{\circ}\text{C}$ $V_{RD}=V_{RRM}$	—	—	10	mA

Thermal Characteristics

Parameters	Symbol	Test Conditions	Values	Unit
Maximum internal thermal resistance, junction to case per leg	$R_{th(J-C)}$	Per diode	0.35	$^{\circ}\text{C}/\text{W}$
Typical thermal resistance, case to heatsink per module	$R_{th(C-S)}$	Module	0.10	$^{\circ}\text{C}/\text{W}$

Performance Curves

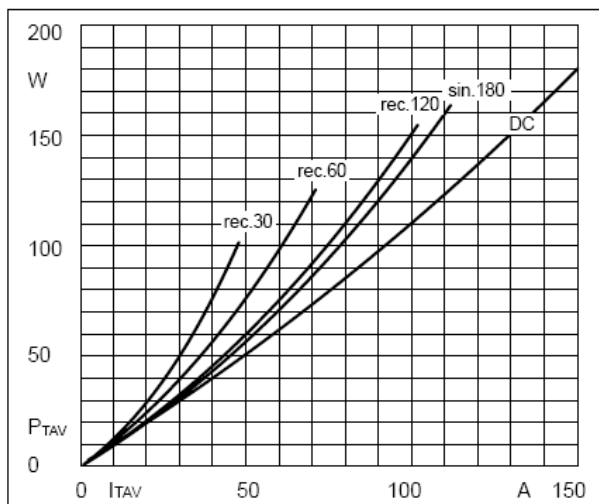


Fig1. Power dissipation

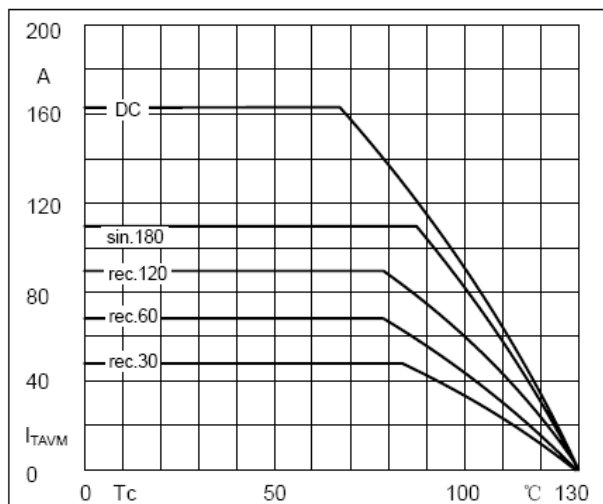


Fig2. Forward Current Derating Curve

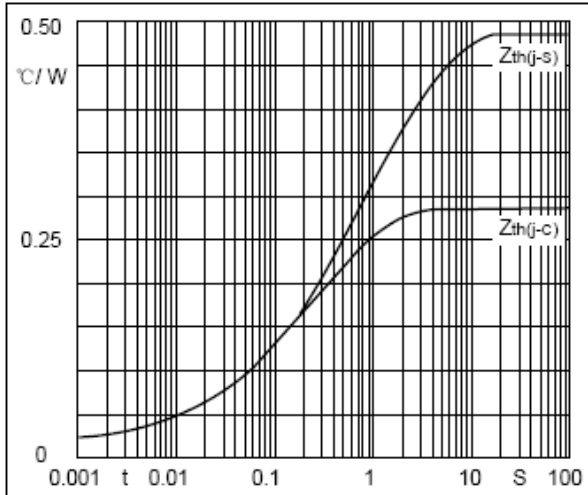


Fig3. Transient thermal impedance

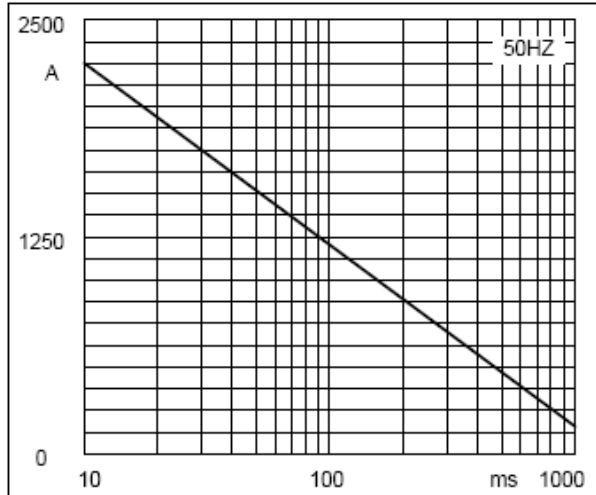


Fig4. Max Non-Repetitive Forward Surge Current

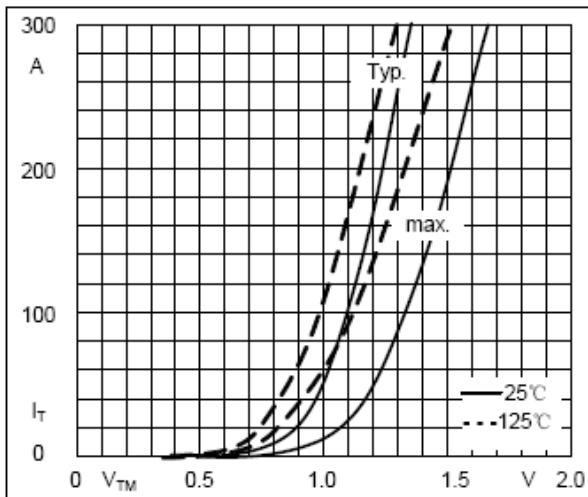
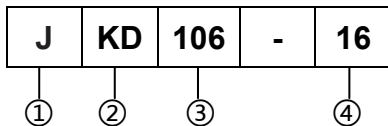


Fig5. Forward Characteristics

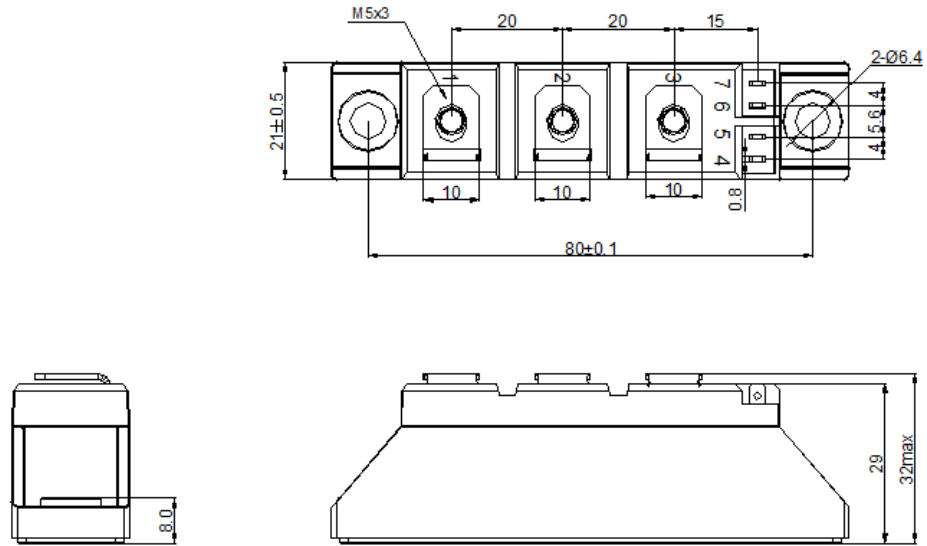
Ordering Information Tabel

Device code



- ① JBY's power module
- ② Circuit configuration
- ③ Maximum average forward current, A
- ④ Voltage code 1600v

PACKAGE OUTLINE INFORMATION



Dimensions in mm