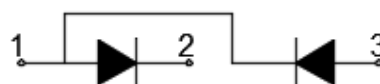


**JBV High Power Products
Diode Modules**
Features

- Blocking voltage: 1600 to 2200V
- Heat transfer through aluminum oxide DBC Ceramic isolated metal baseplate
- Industrial standard package
- Thick copper baseplate
- 3000 V_{RMS} isolating voltage


Typical Applications

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



Module Type		
Type	V _{DRM}	V _{RSM}
JKD172-16	1600V	1700V
JKD172-18	1800V	1900V
JKD172-22	2200V	2300V

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	175	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	3000	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}	$T=25^{\circ}C$ $I_F=500A$	—	1.15	1.5	V
Maximum Repetitive Peak Reverse Current	I_{RRM}	$T_J=25^{\circ}C$ $V_{RD}=V_{RRM}$	—	—	15	μA
		$T_J=150^{\circ}C$ $V_{RD}=V_{RRM}$	—	—	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	0.15	$^{\circ}C/W$
Typical thermal resistance, case to heatsink per module	$R_{th(C-S)}$	Module	0.05	$^{\circ}C/W$

Performance Curves

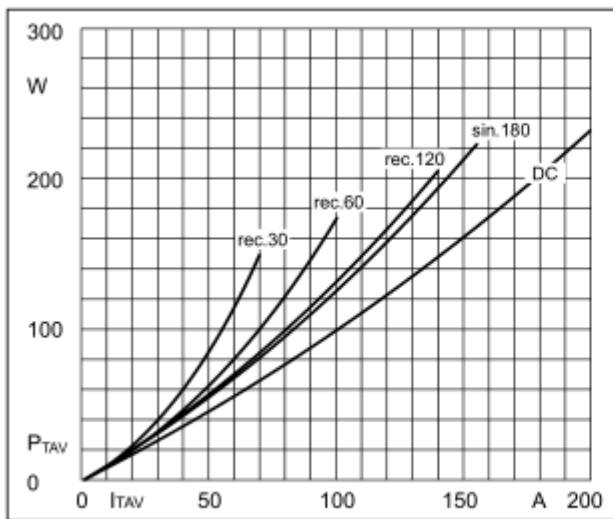


Fig1. Power dissipation

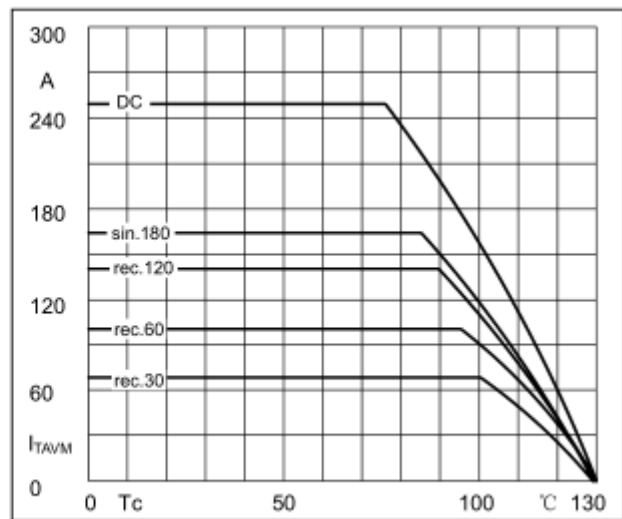


Fig2. Forward Current Derating Curve

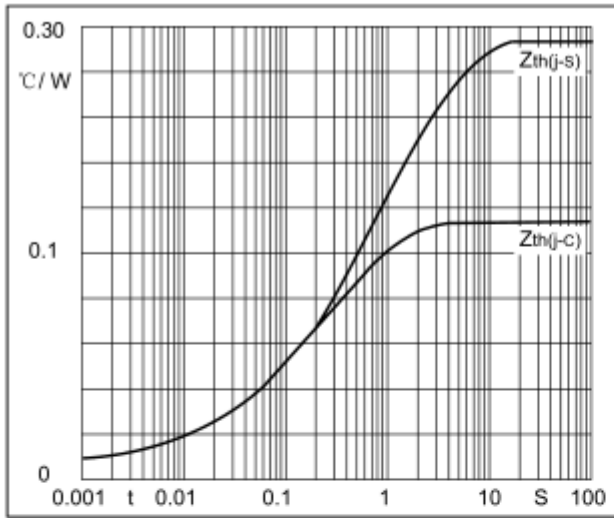


Fig3. Transient thermal impedance

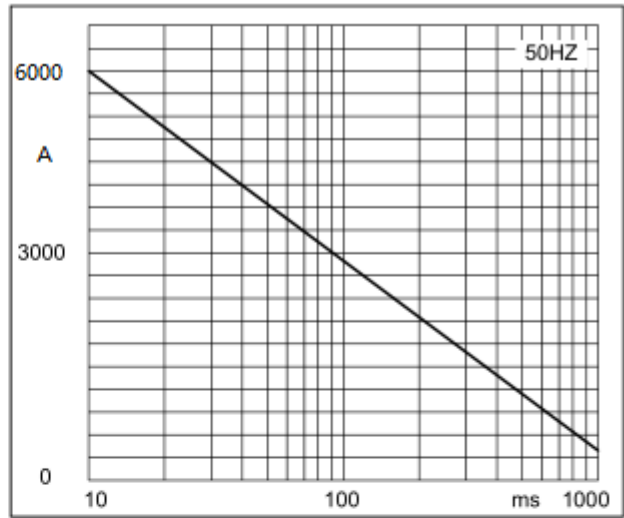


Fig4. Max Non-Repetitive Forward Surge Current

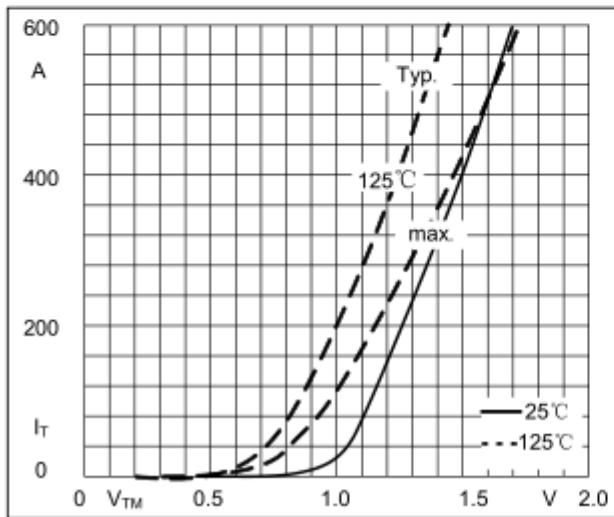
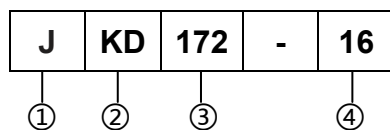


Fig5. Forward Characteristics

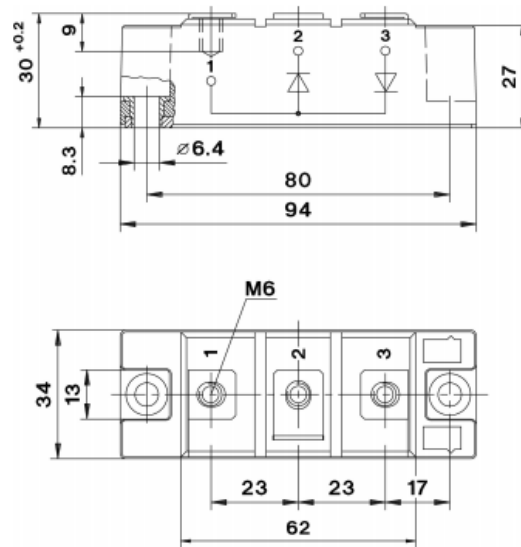
Ordering Information Tabel

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