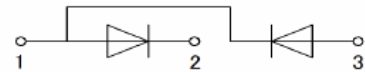


Rectifier Diode Modules
Applications

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


Features

- Blocking voltage: 1200 to 1800V
- Heat transfer through aluminum oxide ceramic isolated metal baseplate



Module Type		
Type	V_{DRM}	V_{RSM}
JKD380-12	1200V	1300V
JKD380-16	1600V	1700V
JKD380-18	1800V	1900V

Maximum Ratings

Symbol	Conditions	Values	Units
I_{FAV}	Single phase ,half wave 180° conduction $T_c=85^{\circ}C$	380	A
I_{FSM}	$t=10mS$ $T_{vj}=45^{\circ}C$	14000	A
i^2t	$t=10mS$ $T_{vj}=45^{\circ}C$	980000	A^2s
V_{isol}	a.c.50HZ;r.m.s.;1min	2500	V
T_{vj}		-40 to 150	$^{\circ}C$
T_{stg}		-40 to 125	$^{\circ}C$
M_t	To terminals(M8)	$12\pm 15\%$	Nm
M_s	To heatsink(M6)	$6\pm 15\%$	Nm
Weight	Module (Approximately)	650	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.11	$^{\circ}C/W$
$R_{th(c-s)}$	Module	0.02	$^{\circ}C/W$

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
V_{FM}	$T=25^{\circ}C$ $I_F=1200A$	—	—	1.45	V
I_{RD}	$T_{vj}=T_{vjM}$ $V_{RD}=V_{RRM}$	—	—	15	mA

Performance Curves

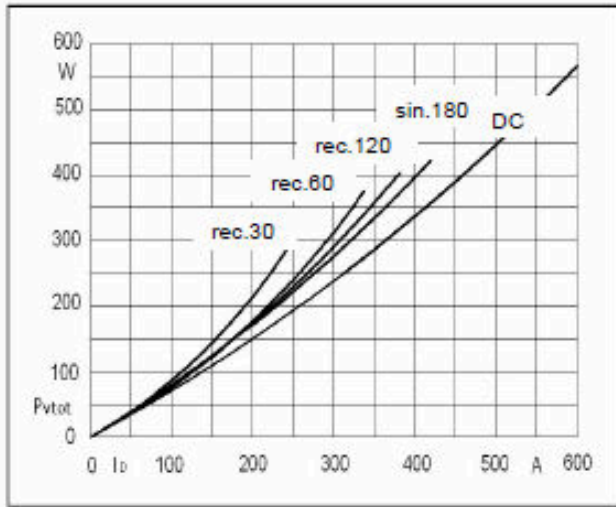


Fig1. Power dissipation

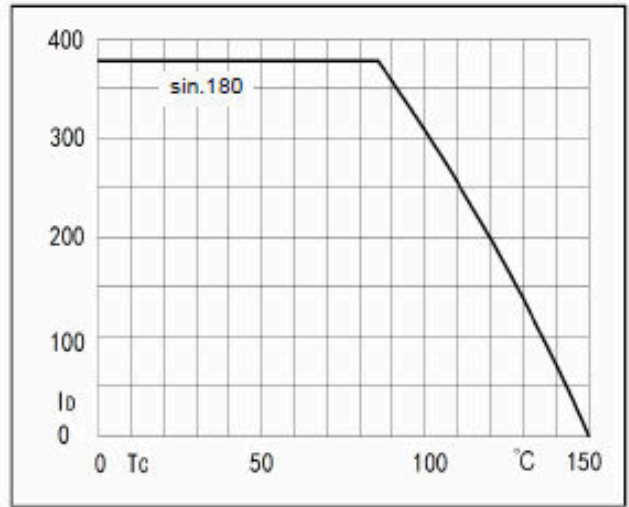


Fig2. Forward Current Derating Curve

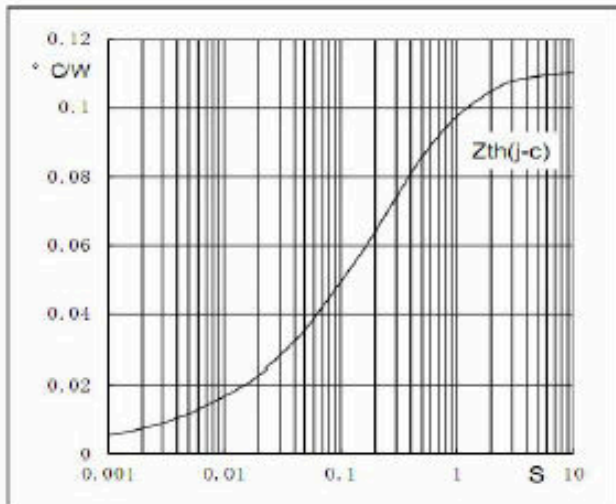


Fig3. Transient thermal impedance

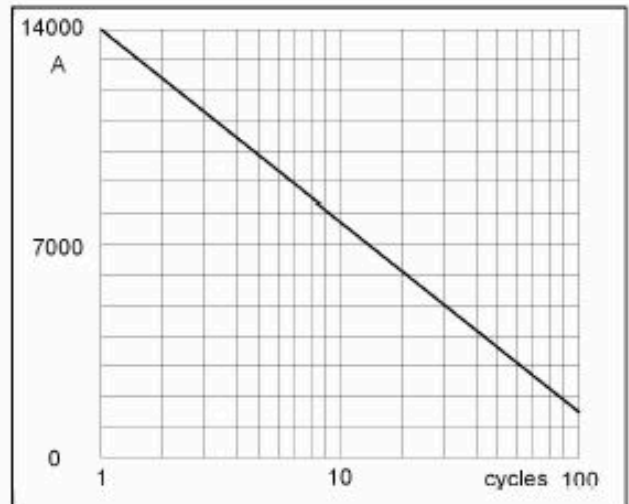


Fig4. Max Non-Repetitive Forward Surge Current

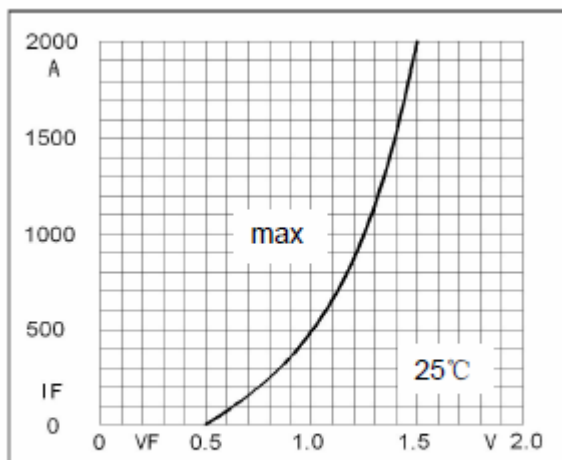


Fig5. Forward Characteristics

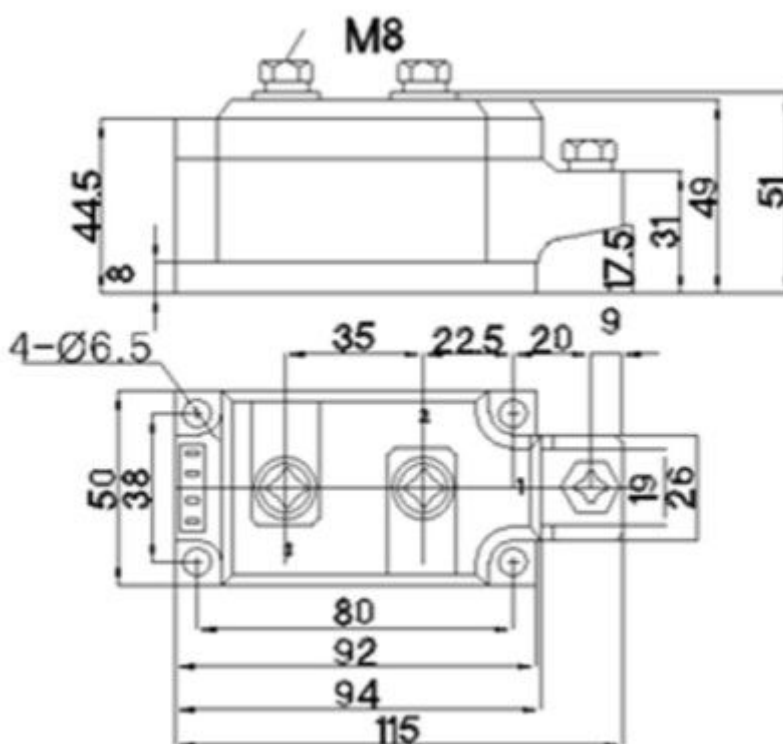
Ordering Information Tabel

Device code

J	KD	380	-	16
①	②	③		④

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

Package Outline Information



dimensions in mm