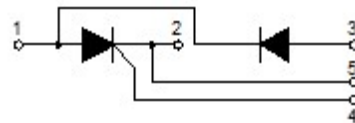


**Thyristor/Diode Modules**
**Features**

- Blocking voltage: 1200 to 1800V
- Industrial standard package
- Thick copper baseplate
- 2500 V<sub>RMS</sub> isolating voltage

**Typical Applications**

- Power Converters
- DC motor Control and Drives
- Temperature control
- Lighting control



Module Type		
Type	V <sub>DRM</sub>	V <sub>RSM</sub>
JKH600-12	1200V	1300V
JKH600-16	1600V	1700V
JKH600-18	1800V	1900V

Maximum Ratings				
Parameters	Symbol	Test Conditions	Values	Unit
Average On-State Current	I <sub>TAV</sub>	Sine 180°C; T <sub>C</sub> =85°C	600	A
Surge forward current	I <sub>TSM</sub>	t=10ms T <sub>J</sub> =125°C	13000	A
Maximum I <sup>2</sup> t for fusing	I <sup>2</sup> t	t=10ms T <sub>J</sub> =125°C	845000	A <sup>2</sup> s
Isolation Breakdown Voltage(R.M.S)	V <sub>isol</sub>	A <sub>C</sub> 50Hz; R.M.S.; 1min	2500	V
		Ac.50Hz; R.M.S; 1sec	3500	V
Operating Junction Temperature	T <sub>J</sub>		-40~+125	°C
Storage Temperature	T <sub>stg</sub>		-40~+125	°C
Mounting Torque	M <sub>t</sub>	To terminals(M8)	12±10%	Nm
	M <sub>s</sub>	To heatsink(M6)	6±10%	
Maximum non-repetitive rate of rise of turned on current	di/dt	T <sub>J</sub> =125°C, I <sub>TM</sub> =1000A ,I <sub>g</sub> =1.5A tr<0.5us	100	A/us
Maximum critical rate of rise of off-state voltage	dv/dt	T <sub>J</sub> =125°C, V <sub>D</sub> =2/3V <sub>DRM</sub>	1000	V/us
Weight			1650	g

Electrical Characteristics						
Parameters	Symbol	Test Conditions	Values			Unit
			Min.	Typ.	Max.	
Maximum Peak On-State Voltage	$V_{TM}$	$I_{TM} = 1500A, T_J = 25^\circ C$			1.45	V
Maximum Repetitive Peak Reverse Current/ Maximum Repetitive Off-state Current	$I_{RRM}/ I_{DRM}$	$T_J = 125^\circ C, V_{RD} = V_{RRM}$			45	mA
On state threshold voltage	$V_{TO}$	For power-loss calculations only $T_J = 125^\circ C$			0.8	V
Maximum Value of on-state slope resistance	$r_T$	$T_J = 125^\circ C$			0.34	m $\Omega$
Maximum gate voltage required to trigger	$V_{GT}$	$T_J = 25^\circ C, V_D = 6V$			2.5	V
Maximum gate current required to trigger	$I_{GT}$	$T_J = 25^\circ C, V_D = 6V$			120	mA
Maximum gate voltage that will not trigger	$V_{GD}$	$T_J = 125^\circ C, V_D = 2/3V_{DRM}$			0.20	V
Maximum gate current that will not trigger	$I_{GD}$	$T_J = 125^\circ C, V_D = 2/3V_{DRM}$			6	mA
Maximum Latching current	$I_L$	$T_J = 25^\circ C, I_G = 1.2I_{GT}$			1000	mA
Maximum Holding current	$I_H$	$T_J = 25^\circ C, I_T = 1A$			200	mA

Thermal Characteristics				
Parameters	Symbol	Test Conditions	Values	Unit
Maximum internal thermal resistance, junction to case per leg	$R_{th(J-C)}$	Per thyristor	0.07	$^\circ C/W$
Typical thermal resistance, case to heatsink per module	$R_{th(C-S)}$	Module	0.024	$^\circ C/W$

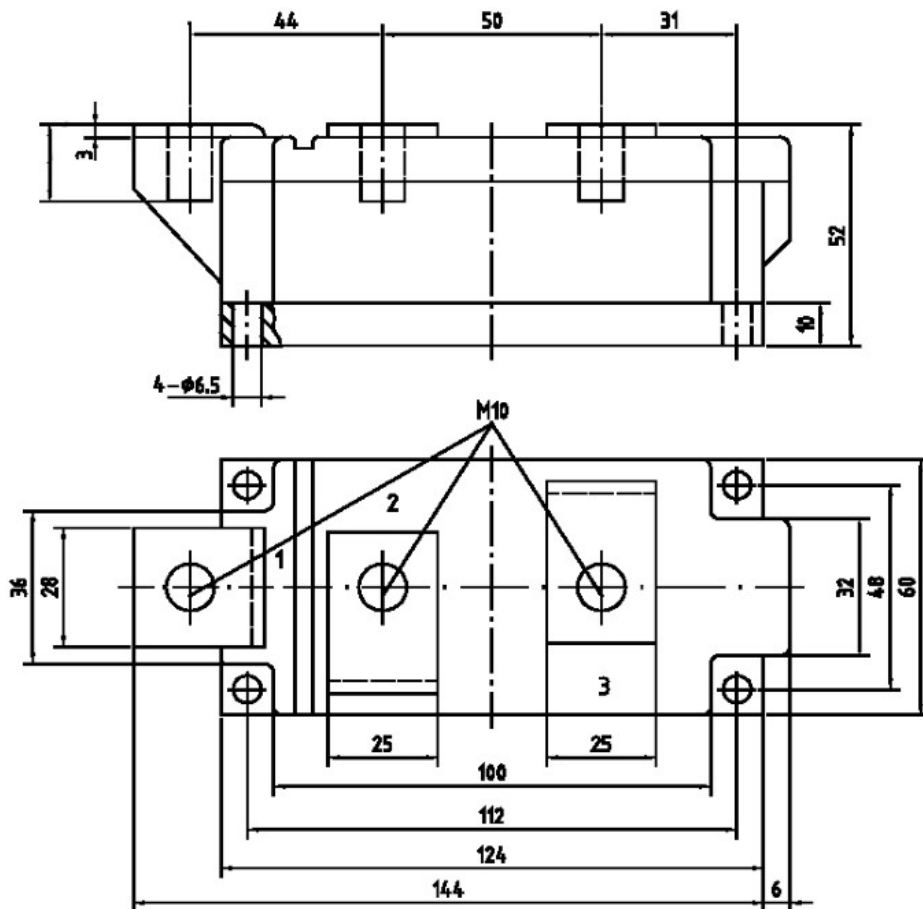
### Ordering Information Tabel

#### Device code

J	KH	600	-	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