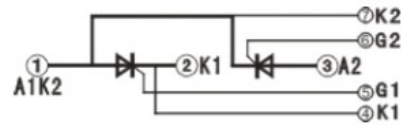


Thyristor Modules

Features

- Blocking voltage: 1600V
- Industrial standard package
- Thick copper baseplate
- 2500 V_{RMS} isolating voltage



Typical Applications

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

Module Type		
Type	V _{DRM}	V _{RSM}
JKT300-16	1600V	1700V

Maximum Ratings				
Parameters	Symbol	Test Conditions	Values	Unit
Average On-State Current	I _{TAV}	Sine 180°C; T _C =85°C	300	A
Surge forward current	I _{TSM}	t=10ms T _J =45°C	9400	A
Maximum I ² t for fusing	I ² t	t=10ms T _J =45°C	451	KA ² s
Isolation Breakdown Voltage(R.M.S)	Visol	A _C 50Hz; R.M.S.; 1min	2500	V
		Ac.50Hz; R.M.S; 1sec	3500	V
Operating Junction Temperature	T _J		-40~+125	°C
Storage Temperature	T _{stg}		-40~+125	°C
Mounting Torque	Mt	To terminals(M8)	12± 10%	Nm
	Ms	To heatsink(M6)	6± 10%	
Maximum non-repetitive rate of rise of turned on current	di/dt	T _J =25°C from 0.67V _{DRM} , I _{TM} = π × I _{T(AV)} ,I _g =500mA tr<0.5us tp>6us	100	A/us
Maximum critical rate of rise of off-state voltage	dv/dt	T _J =125°C, V _D =2/3V _{DRM}	1000	V/us

Electrical Characteristics						
Parameters	Symbol	Test Conditions	Values			Unit
			Min.	Typ.	Max.	
Maximum Peak On-State Voltage	V_{TM}	$I_{TM} = \pi \times I_{T(AV)}, T_J=25^\circ\text{C}$			1.65	V
Maximum Repetitive Peak Reverse Current/ Maximum Repetitive Off-state Current	I_{RRM}/ I_{DRM}	$T_J=125^\circ\text{C} \quad V_{RD}=V_{RRM}$			25	mA
Maximum gate voltage required to trigger	V_{GT}	$T_J=25^\circ\text{C}, \quad V_D=6\text{V}$			2.0	V
Maximum gate current required to trigger	I_{GT}	$T_J=25^\circ\text{C}, \quad V_D=6\text{V}$	40		100	mA
Maximum Latching current	I_L	$T_J=25^\circ\text{C}, \quad I_G=1.2I_{GT}$			400	mA
Maximum Holding current	I_H	$T_J=25^\circ\text{C}, \quad I_T=1\text{A}$			150	mA

Thermal Characteristics				
Parameters	Symbol	Test Conditions	Values	Unit
Maximum internal thermal resistance, junction to case	$R_{th(J-C)}$	Per module	0.10	$^\circ\text{C}/\text{W}$
Typical thermal resistance, case to heatsink	$R_{th(C-S)}$	Per module	0.05	$^\circ\text{C}/\text{W}$

Ordering Information Tabel

Device code

J	KT	300	-	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

