

# K1V(A)10

SIDACs / Bi-directional (K1V Series)

90V, 10 $\mu$ A

## Feature

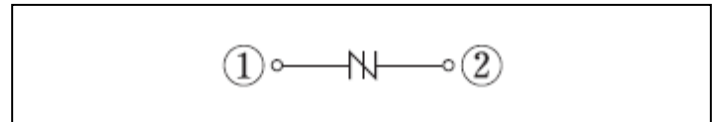
- Bi-directional type
- Wide-ranging pulse generation
- Direct switching with commercial power
- A reliable product with a track record, developed for many applications
- Pb free terminal
- RoHS:Yes

## OUTLINE

Package (House Name): AX06



## Equivalent circuit



## Absolute Maximum Ratings (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	Tstg		-40 to 125	°C
Junction temperature	Tj		125	°C
Repetitive peak off-state voltage	V <sub>DRM</sub>		90	V
On-state current (r.m.s.)	I <sub>T</sub> (RMS)	Tl=109°C, 50Hz sine wave, $\theta=180^\circ$	1	A
Surge on-state current	I <sub>TSM</sub>	Tj=25°C, 50Hz Sine wave, $\theta=180^\circ$ , Non-repetitive 1 cycle peak value	16	A
Pulse on-state current	I <sub>TRM</sub>	Ta=25°C, Pulse width to=10 $\mu$ s, Sine wave, f=1kHz	15	A
Pulse on-state current	I <sub>TRM</sub>	Ta=25°C, Pulse width to=10 $\mu$ s, Sine wave, f=60Hz	60	A
Critical rate of rise of on-state current	di <sub>T</sub> /dt		50	A/ $\mu$ s

※ : See the original Specifications

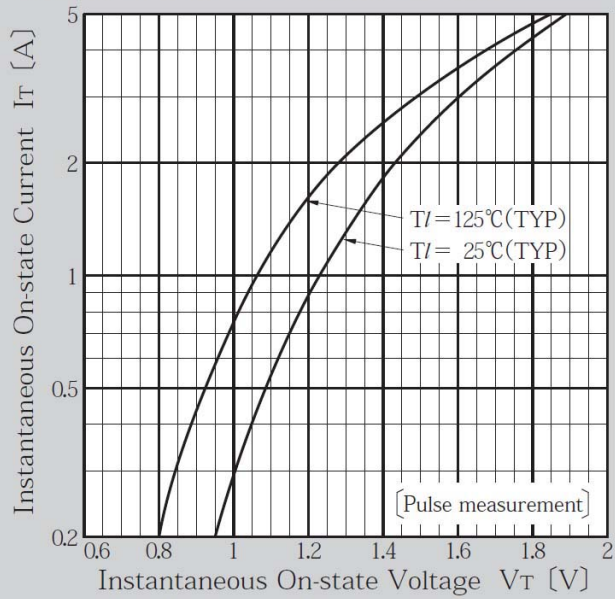
**Electrical Characteristics** (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakover voltage	$V_{BO}$	dv/dt=4V/ms, Pulse measurement	95		113	V
Off-state current	$I_{DRM}$	VD=90V			10	$\mu$ A
Breakover current	$I_{BO}$				0.5	mA
Holding current	$I_H$			50		mA
On-state voltage	$V_T$	IT=1A			1.6	V
Switching Resistance	$R_s$		0.1			k $\Omega$
Thermal Resistance	$R_{th(j-l)}$	Junction to lead			20	$^{\circ}$ C/W

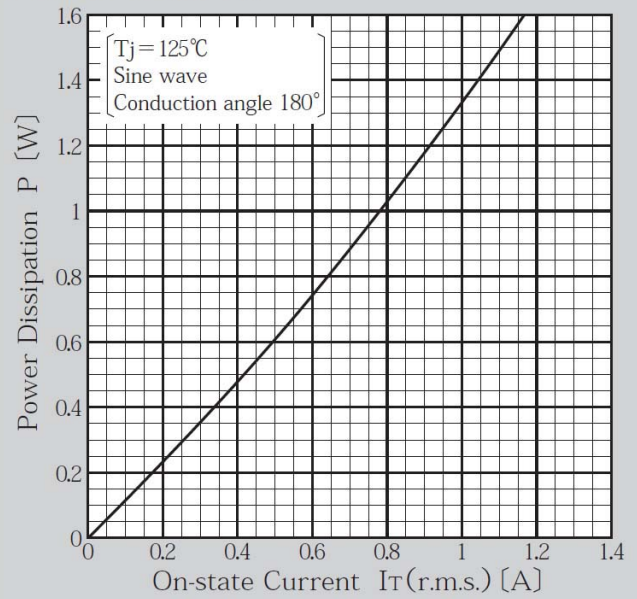
※ :See the original Specifications

# CHARACTERISTIC DIAGRAMS

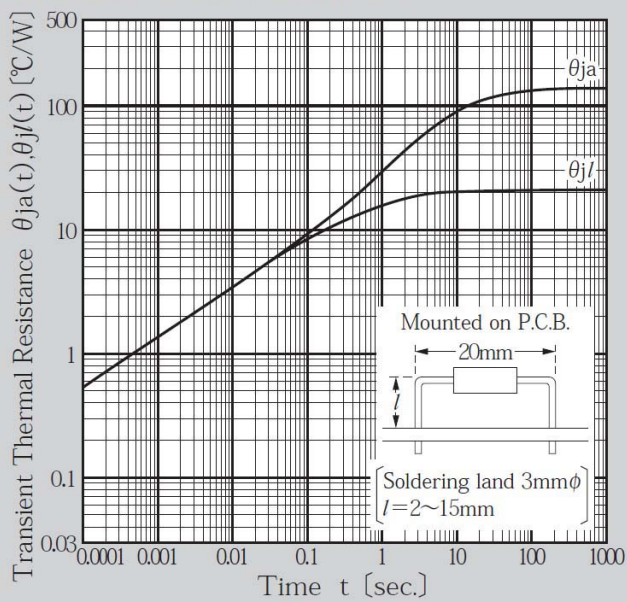
### On-state Voltage vs On-state Current



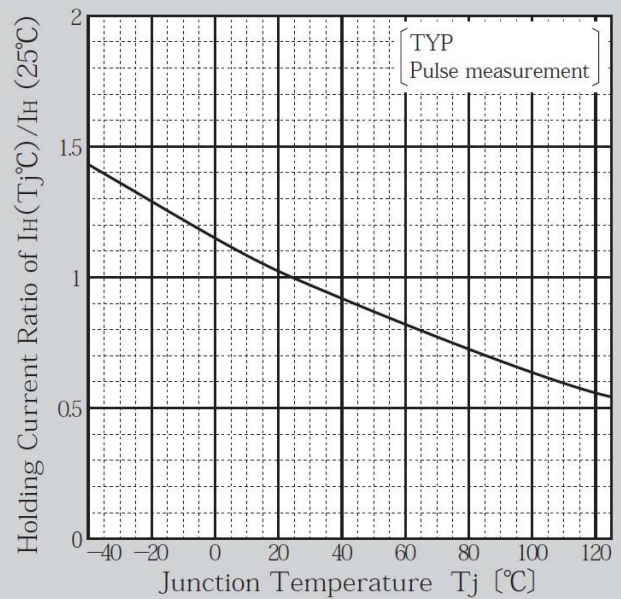
### Power Dissipation



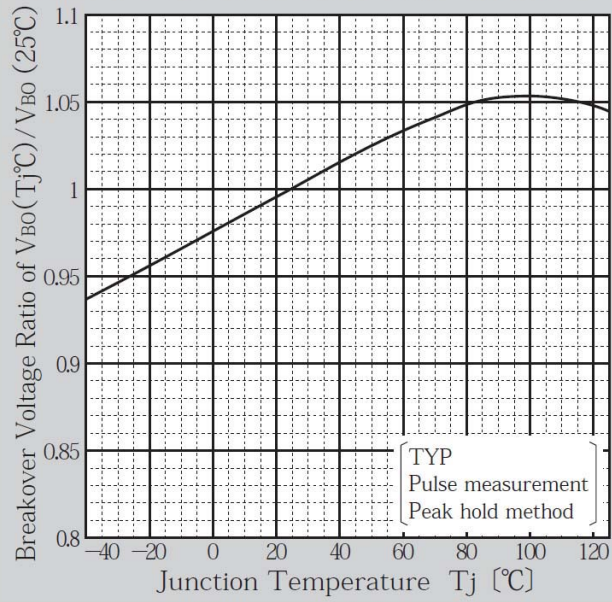
### Transient Thermal Resistance



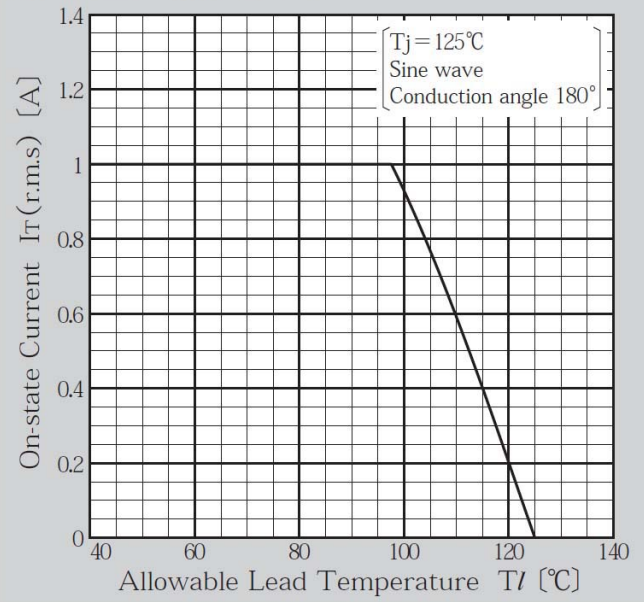
### Holding Current vs Junction Temperature



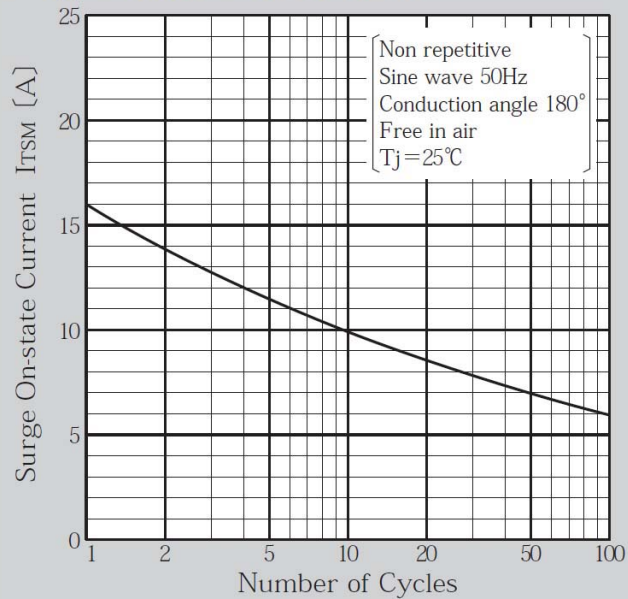
Breakover Voltage vs Junction Temperature



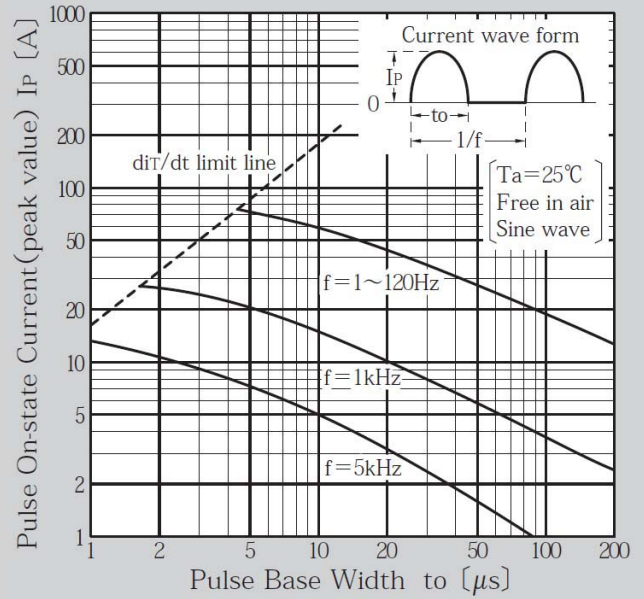
Max. Lead Temperature



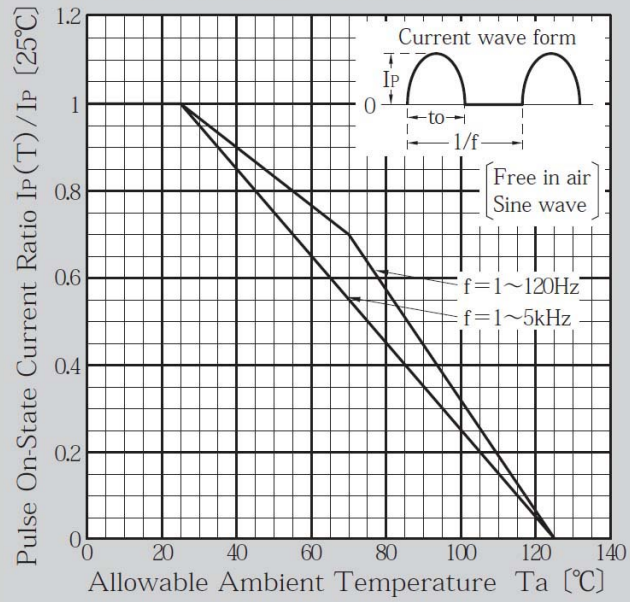
Surge On-state Current ( $I_{TSM}$ )



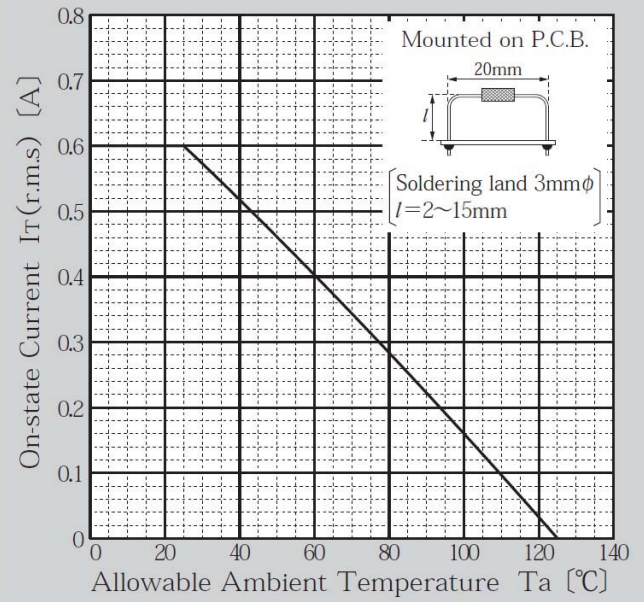
Pulse On-state Current Rating ( $I_{TRM}$ )



### Pulse On-state Current Derating ( $I_{TRM}$ )



### Maximum Ambient Temperature



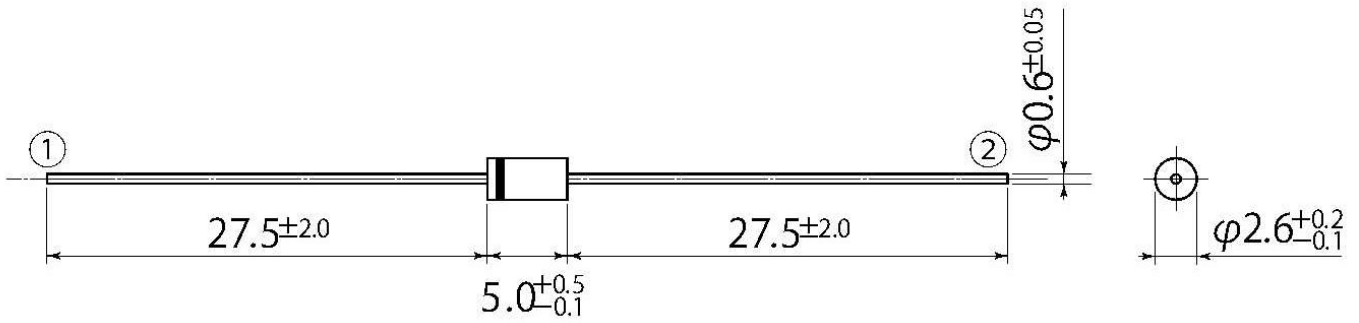
## Outline Dimensions

unit:mm

scale: 2/1

A2

JEDEC Code	—
JEITA Code	—
House Name	AX06



## Notes

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  - 【Specific applications】  
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