

K1V12

SIDACs / Bi-directional (K1V Series)

90V, 10 μ A

Feature

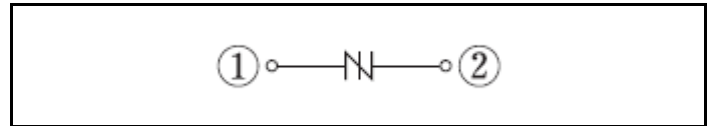
- Bi-directional type
- Wide-ranging pulse generation
- Direct switching with commercial power
- A reliable product with a track record, developed for many applications
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): AX10



Equivalent circuit



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

Item	Symbol	Conditions	Ratings	Unit
Storage temperature	T _{stg}		-40 to 125	°C
Junction temperature	T _j		125	°C
Repetitive peak off-state voltage	V _{DRM}		90	V
On-state current (r.m.s.)	I _{T(RMS)}	Tl=112°C, 50Hz sine wave, $\theta=180^\circ$	1	A
Surge on-state current	I _{TSM}	T _j =25°C, 50Hz Sine wave, $\theta=180^\circ$, Non-repetitive 1 cycle peak value	20	A
Pulse on-state current	I _{TRM}	Ta=25°C, Pulse width to=10 μ s, Sine wave, f=1kHz	25	A
Pulse on-state current	I _{TRM}	Ta=25°C, Pulse width to=10 μ s, Sine wave, f=60Hz	80	A
Critical rate of rise of on-state current	di _T /dt		80	A/ μ s

* :See the original Specifications

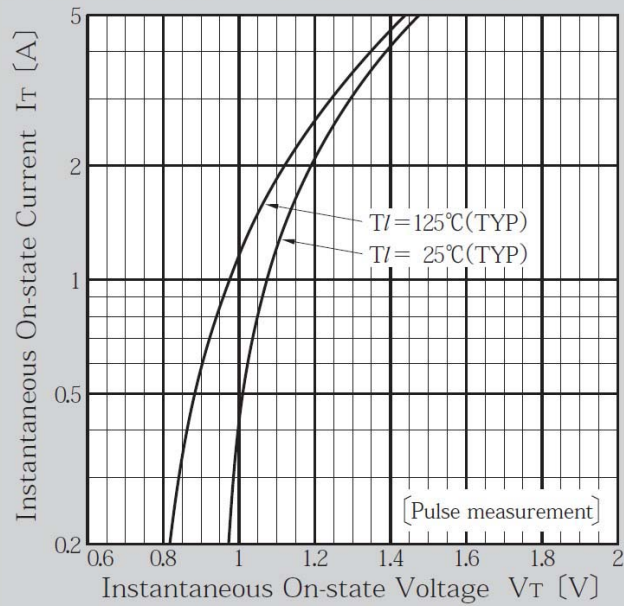
Electrical Characteristics (unless otherwise specified : Tl=25°C)

Item	Symbol	Conditions	Ratings			Unit
			MIN	TYP	MAX	
Breakover voltage	V_{BO}	dv/dt=4V/ms, Pulse measurement	110		125	V
Off-state current	I_{DRM}	VD=90V			10	μ A
Breakover current	I_{BO}				0.5	mA
Holding current	I_H			50		mA
On-state voltage	V_T	IT=1A			1.5	V
Switching Resistance	R_s		0.1			k Ω
Thermal Resistance	$R_{th(j-l)}$	Junction to lead			15	$^{\circ}$ C/W

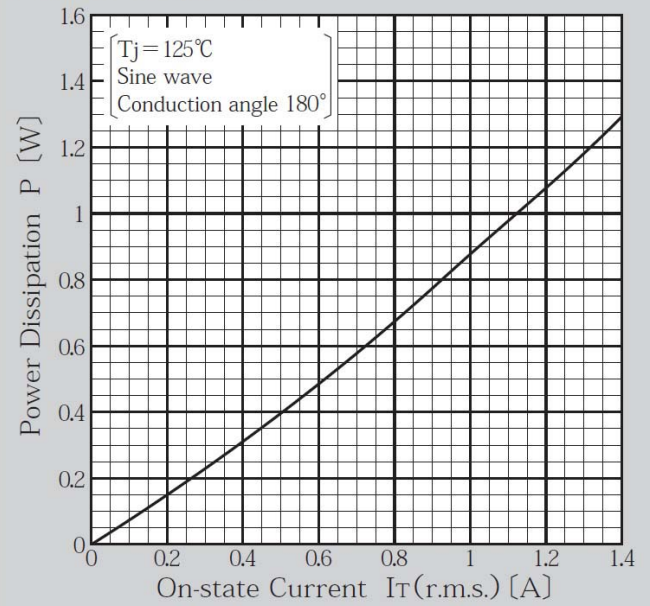
* :See the original Specifications

CHARACTERISTIC DIAGRAMS

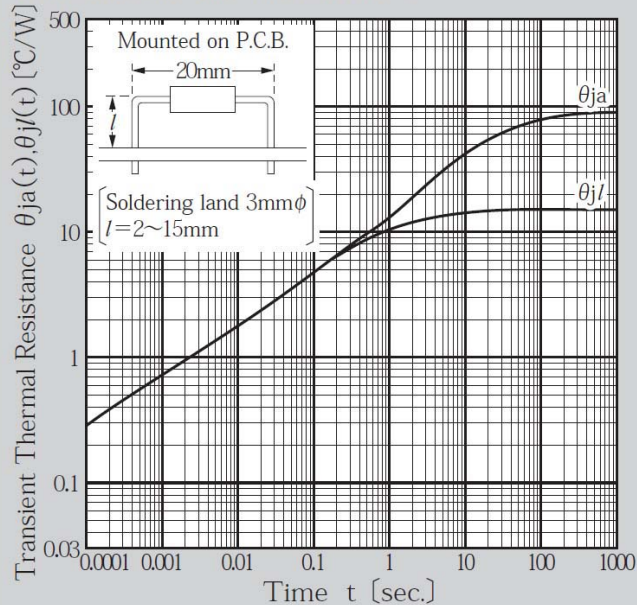
On-state Voltage vs On-state Current



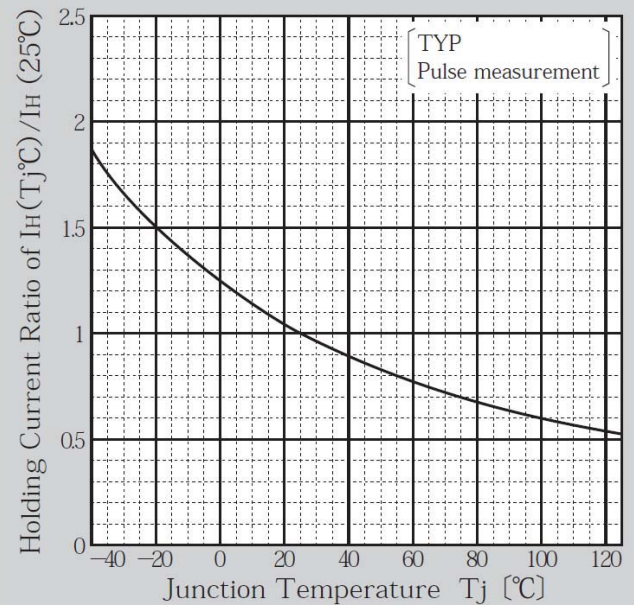
Power Dissipation



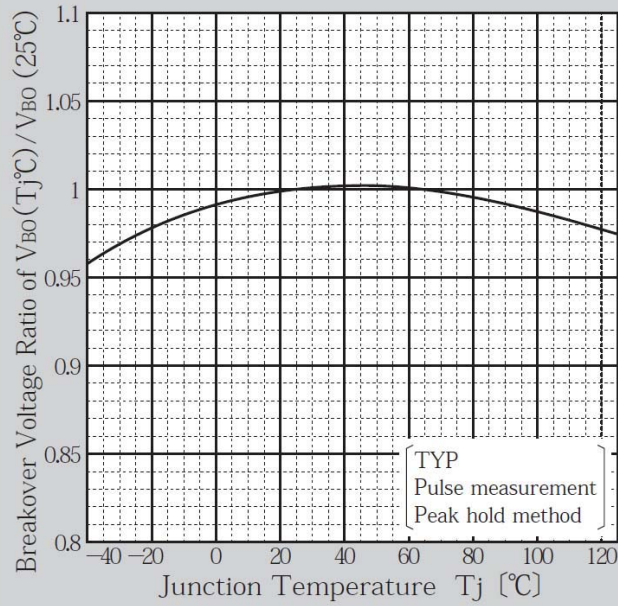
Transient Thermal Resistance



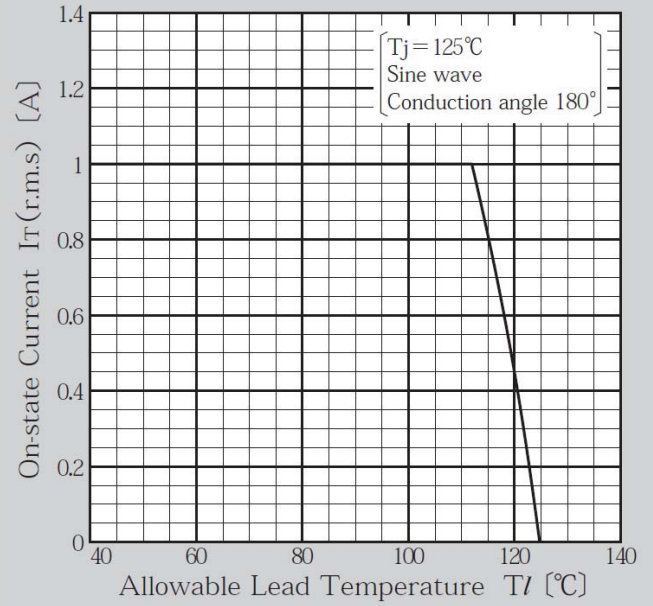
Holding Current vs Junction Temperature



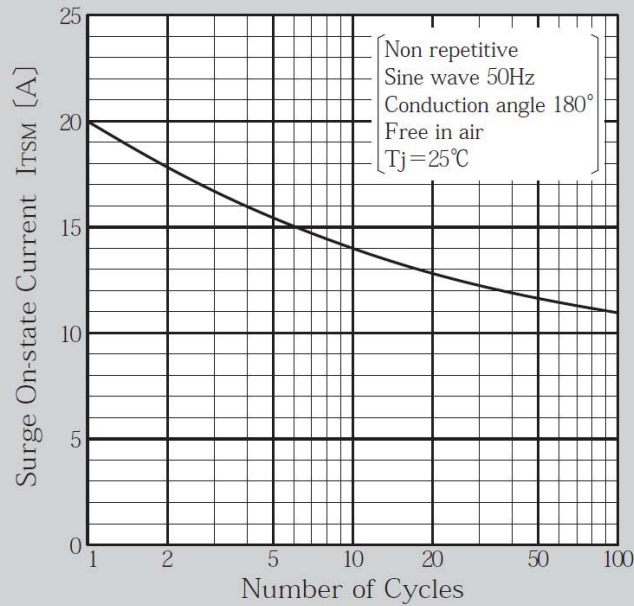
Breakover Voltage vs Junction Temperature



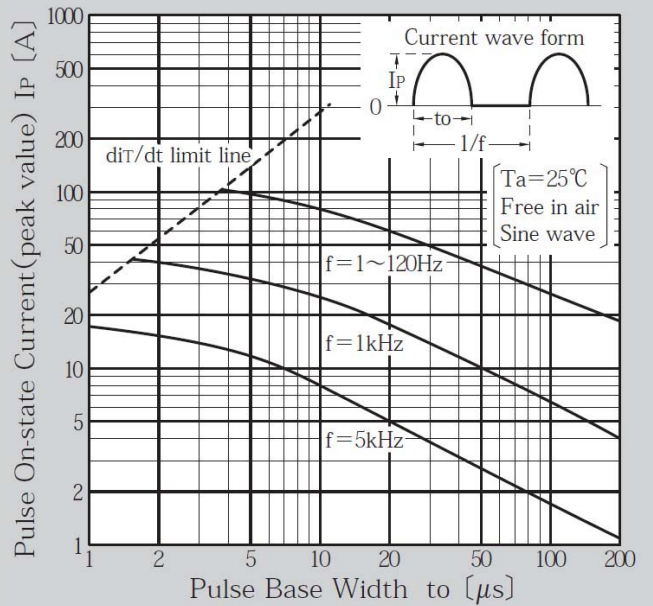
Max. Lead Temperature



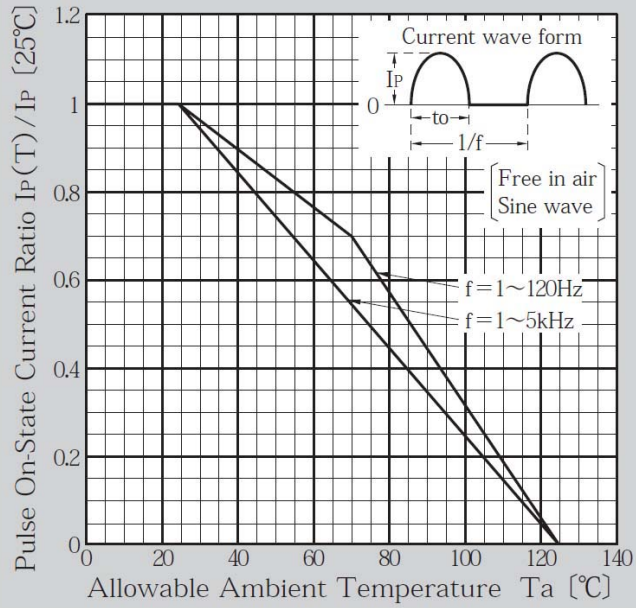
Surge On-state Current (I_{TSM})



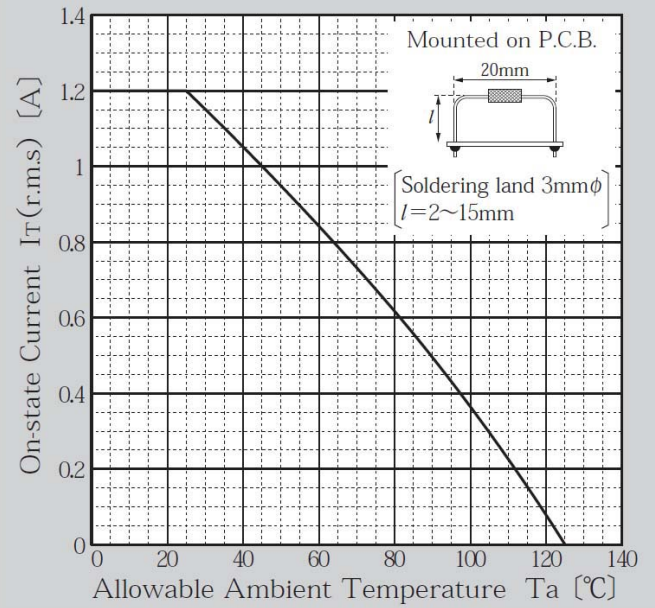
Pulse On-state Current Rating (I_{TRM})



Pulse On-state Current Derating (ITRM)



Maximum Ambient Temperature



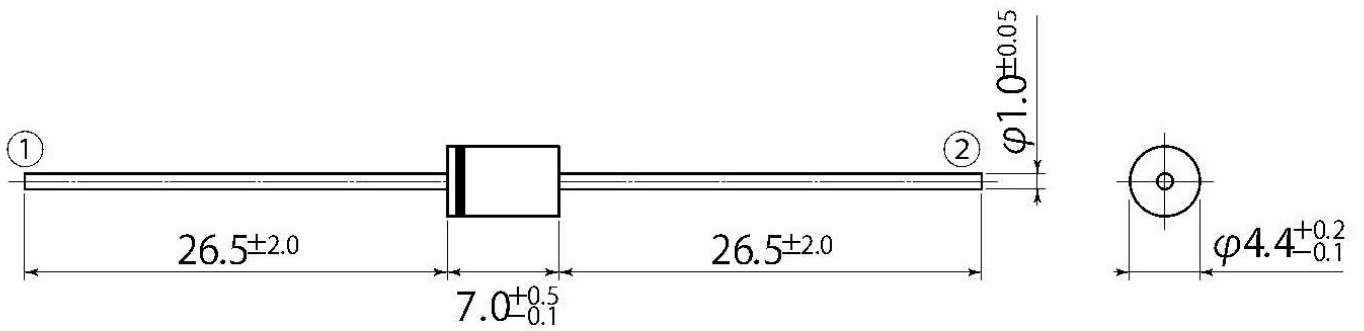
Outline Dimensions

unit:mm

scale: 2/1

A5

JEDEC Code	—
JEITA Code	—
House Name	AX10



Notes

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