

K1V24(W)

SIDACs / Bi-directional (K1V Series)

180V, 10 μ A

Feature

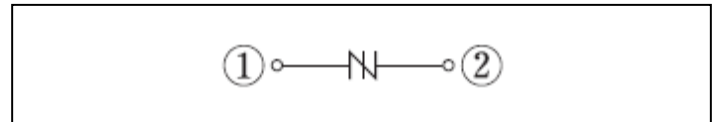
- Bi-directional type
- Wide-ranging pulse generation
- Direct switching with commercial power
- A reliable product with a track record, developed for many applications
- Pb free terminal
- RoHS:Yes

OUTLINE

Package (House Name): AX10



Equivalent circuit



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

| Item | Symbol | Conditions | Ratings | Unit |
|---|----------------------|---|------------|------------|
| Storage temperature | Tstg | | -40 to 125 | °C |
| Junction temperature | Tj | | -40 to 125 | °C |
| Repetitive peak off-state voltage | V _{DRM} | | 180 | V |
| On-state current (r.m.s.) | I _T (RMS) | Tl=91°C, 50Hz sine wave, $\theta=180^\circ$, On glass-epoxy substrate | 1 | A |
| Surge on-state current | I _{TSM} | Tj=25°C, 50Hz Sine wave, $\theta=180^\circ$, Non-repetitive 1 cycle peak value | 16 | A |
| Pulse on-state current | I _{TRM} | Ta=25°C, Pulse width to=10 μ s, Sine wave, f=1kHz | 17 | A |
| Pulse on-state current | I _{TRM} | Ta=25°C, Pulse width to=10 μ s, Sine wave, f=60Hz | 50 | A |
| Critical rate of rise of on-state current | di _T /dt | | 80 | A/ μ s |

※ : See the original Specifications

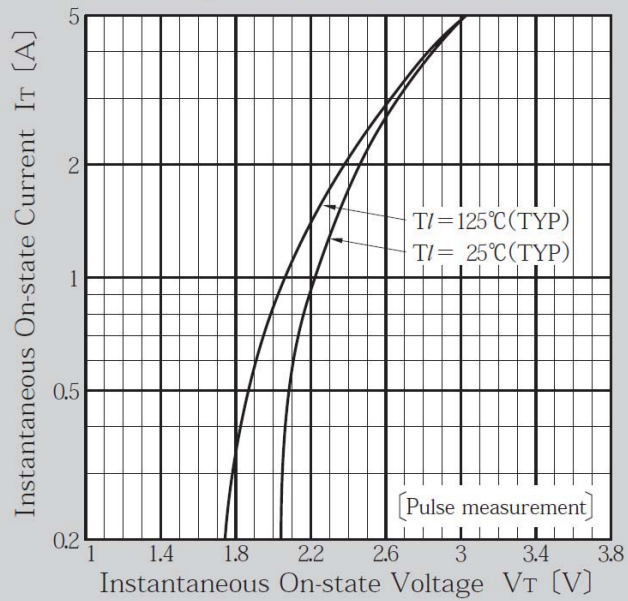
Electrical Characteristics (unless otherwise specified : Tl=25°C)

| Item | Symbol | Conditions | Ratings | | | Unit |
|----------------------|---------------|--|---------|-----|-----|----------------|
| | | | MIN | TYP | MAX | |
| Breakover voltage | V_{BO} | dv/dt=4V/ms, Pulse measurement | 220 | | 250 | V |
| Off-state current | I_{DRM} | VD=180V | | | 10 | μ A |
| Breakover current | I_{BO} | | | | 0.5 | mA |
| Holding current | I_H | | | 50 | | mA |
| On-state voltage | V_T | IT=1A | | | 3 | V |
| Switching Resistance | R_s | | 0.1 | | | k Ω |
| Thermal Resistance | $R_{th(j-l)}$ | Junction to lead, On glass-epoxy substrate | | | 15 | $^{\circ}$ C/W |

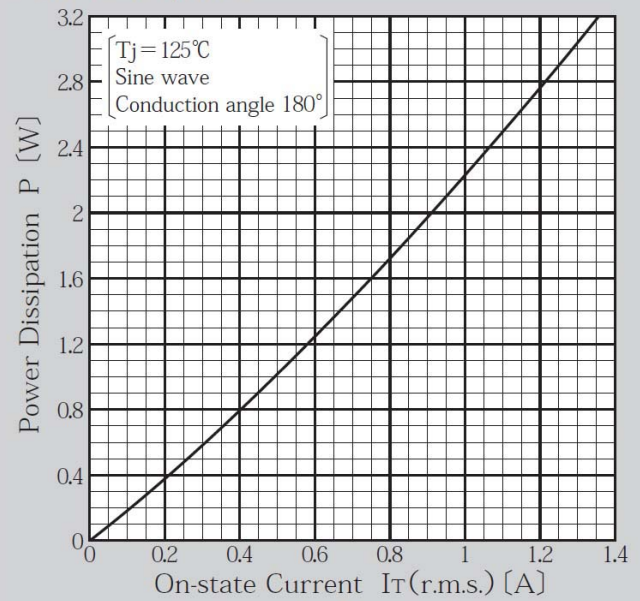
※ :See the original Specifications

CHARACTERISTIC DIAGRAMS

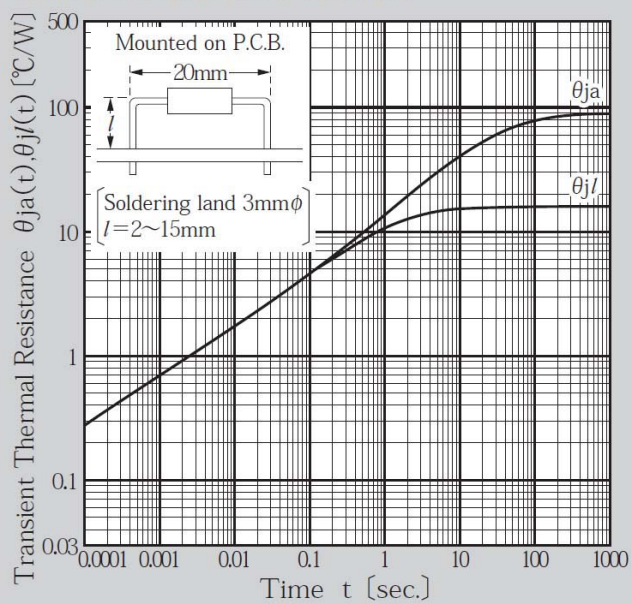
On-state Voltage vs On-state Current



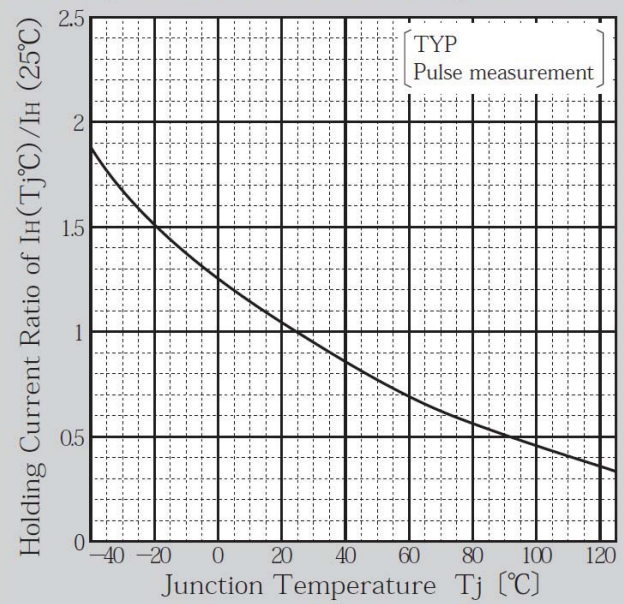
Power Dissipation



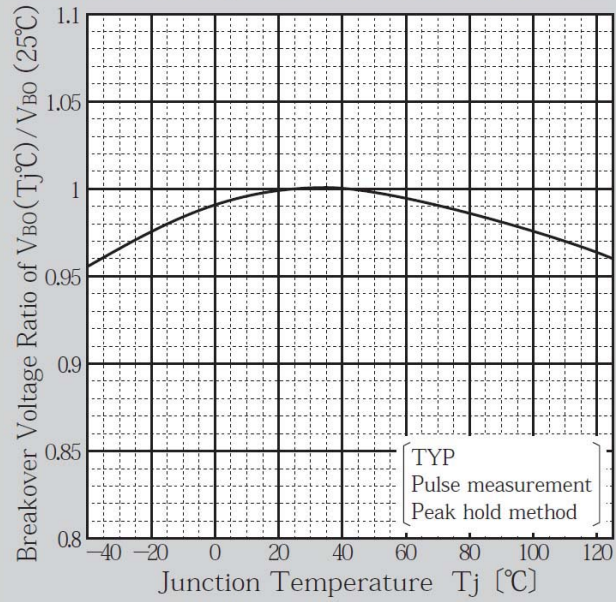
Transient Thermal Resistance



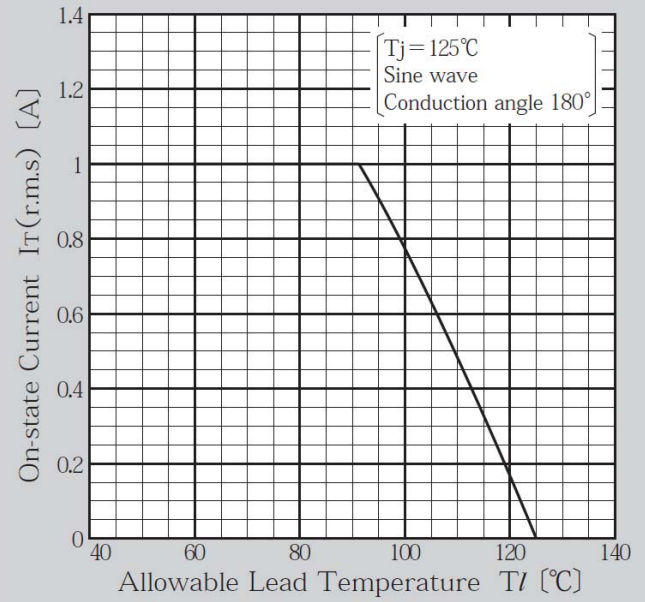
Holding Current vs Junction Temperature



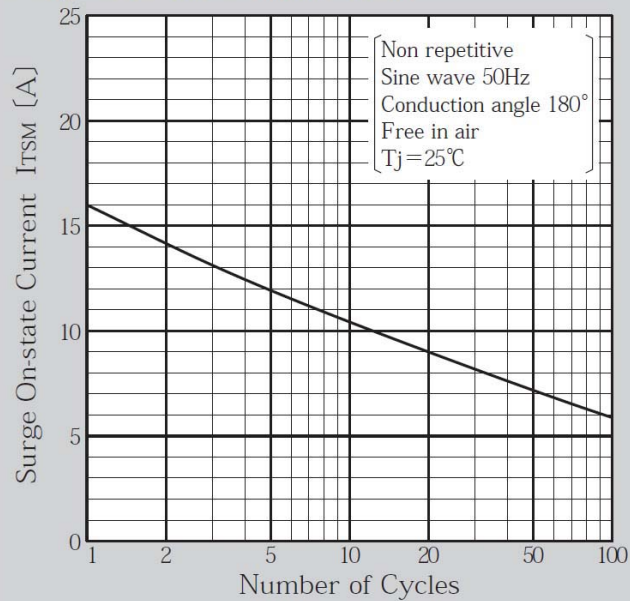
Breakover Voltage vs Junction Temperature



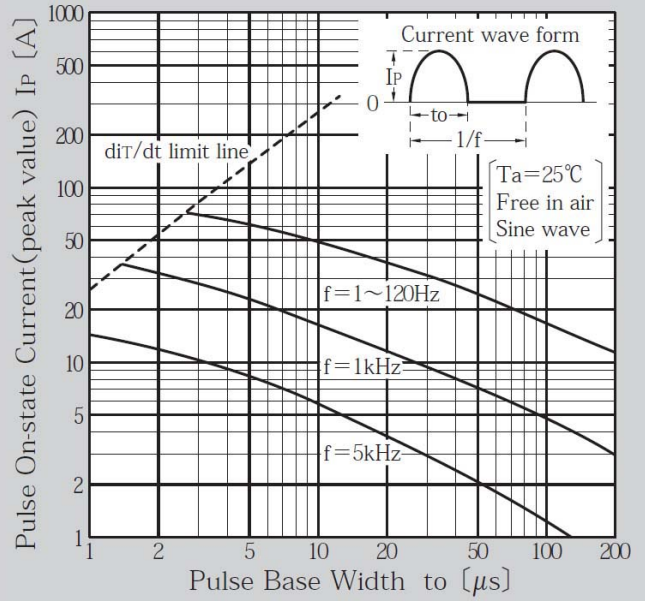
Max. Lead Temperature



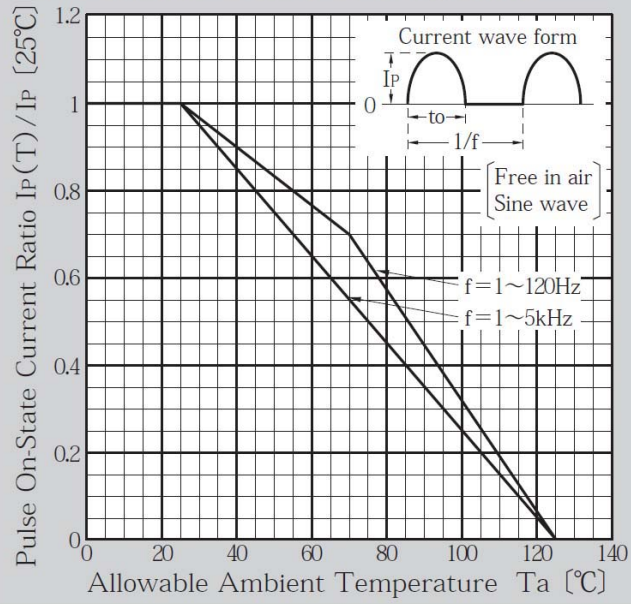
Surge On-state Current (ITSM)



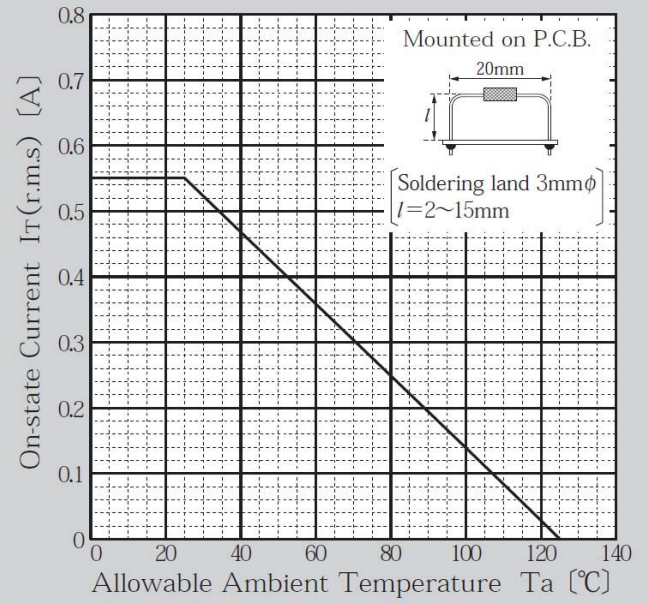
Pulse On-state Current Rating (ITRM)



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



Maximum Ambient Temperature



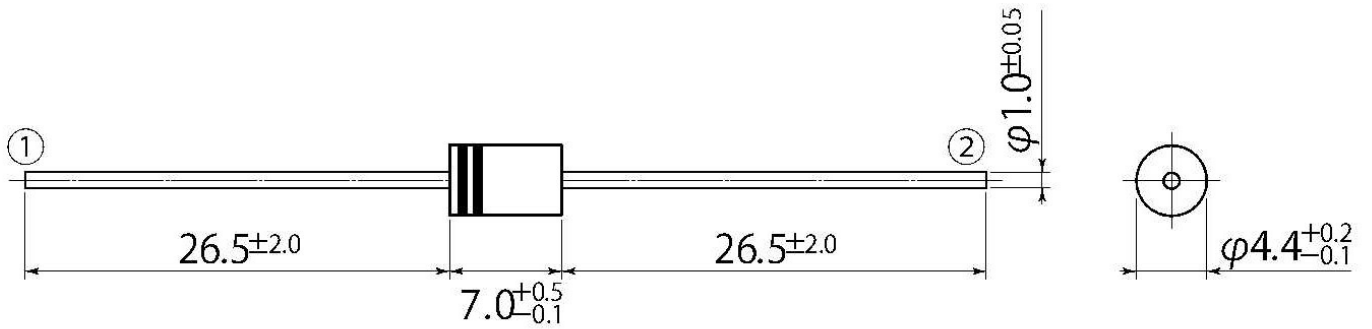
Outline Dimensions

unit:mm

scale: 2/1

A6

| | |
|------------|------|
| JEDEC Code | — |
| JEITA Code | — |
| House Name | AX10 |



Notes

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