

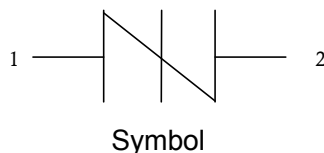


### DESCRIPTION:

The sidac is a silicon bilateral voltage triggered switch with greater power-handling capabilities than standard diacs. Upon application of a voltage exceeding the sidac breakover voltage point, the sidac switches on through a negative resistance region to a low on-state voltage. Conduction continues until the current is interrupted or drops below the minimum holding current of the device.

### APPLICATIONS:

- ✧ High-voltage lamp ignitors
- ✧ Natural gas ignitors
- ✧ Gas oil ignitors
- ✧ High-voltage power supplies
- ✧ Xenon ignitors
- ✧ Overvoltage protector
- ✧ Pulse generators
- ✧ Fluorescent lighting ignitorsHID lighting ignitors



### FEATURES:

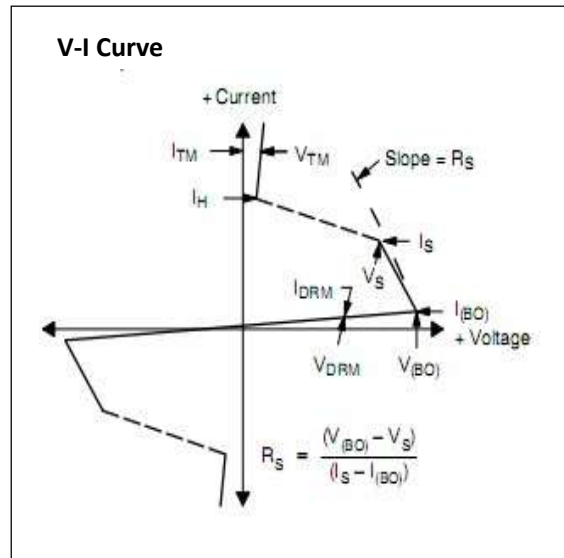
- ✧ Excellent capability of absorbing transient surge
- ✧ Quick response to surge voltage (ns Level)
- ✧ Glass-passivated junctions
- ✧ High voltage lcmp ignitors

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T <sub>stg</sub>	-40 to +125	°C
Operating junction temperature range	T <sub>j</sub>	-40 to +125	°C
On-state RMS Current	I <sub>T</sub>	1	A
Maximum surge on-state current non-repetitive one cycle peak value (50Hz)	I <sub>TSM</sub>	16.7	A
Critical rate-of-rise of on-state current	di <sub>T</sub> /dt	80	A

**ELECTRICAL CHARACTERISTICS** (T<sub>A</sub>=25°C)

Symbol	Parameter
V <sub>DRM</sub>	Peak off-state voltage
I <sub>DRM</sub>	Off-state current
V <sub>S</sub>	Switching voltage
I <sub>S</sub>	Switching current
R <sub>S</sub>	Switching resistance
V <sub>T</sub>	On-state voltage
I <sub>H</sub>	Holding current
V <sub>BO</sub>	Breakover Voltage
I <sub>BO</sub>	Breakover current



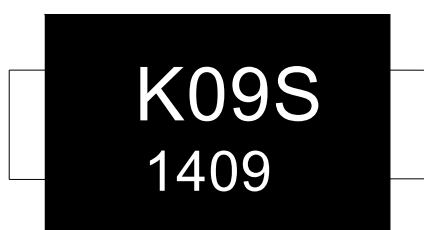
**ELECTRICAL CHARACTERISTICS** (T<sub>A</sub>=25°C, continued)

Part Number	I <sub>DRM</sub> @V <sub>DRM</sub>		V <sub>BO</sub>		I <sub>BO</sub>	V <sub>T</sub> @ I <sub>T</sub> =1A	I <sub>H</sub>	R <sub>S</sub>	Marking
	μA	V	V		uA	V	mA	kΩ	
	max	min	min	max	max	max	min	min	
K0900S	1	70	80	97	50	2	10	0.1	K09S
K1050S	1	90	95	113	50	2	10	0.1	K10S
K1200S	1	100	110	125	50	2	10	0.1	K12S
K1300S	1	110	120	138	50	2	10	0.1	K13S
K1400S	1	120	130	146	50	2	10	0.1	K14S
K1500S	1	130	140	170	50	2	10	0.1	K15S
K1800S	1	160	170	195	50	2	10	0.1	K18S
K2000S	1	180	190	215	50	2	10	0.1	K20S
K2200S	1	190	205	230	50	2	10	0.1	K22S
K2400S	1	200	220	250	50	2	10	0.1	K24S
K2600S	1	220	240	270	50	2	10	0.1	K26S

## ORDERING INFORMATION

K	090	0	S
Series code K:Sidac	Median voltage	0: Bi-direction 1: Uni-direction	Package type:Surface mount

## MARKING



K09S:Device Marking Code  
1409: In ninth week, 2014

## SOLDERING PARAMETERS

Reflow Condition		Pb-Free assembly (see FIG.2)
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	+150°C
	-Temperature Max( $T_{s(max)}$ )	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak)		3°C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature( $T_L$ ) (Liquid us)	+217°C
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_p$ )		+260(+0/-5)°C
Time within 5°C of actual Peak Temp ( $t_p$ )		8-15 secs.
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp ( $T_P$ )		8 min. Max
Do not exceed		+260°C

FIG.1: Maximum allowable ambient temperature versus on-state current

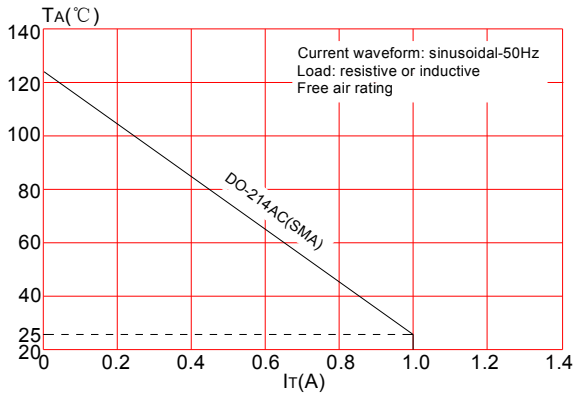


FIG.2: Reflow condition

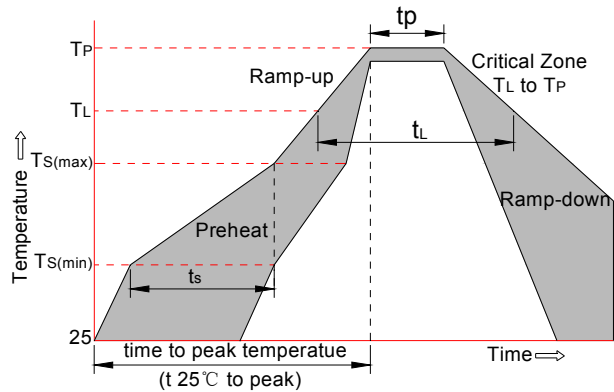


FIG.3: Normalized Vs change vs. junction temperature

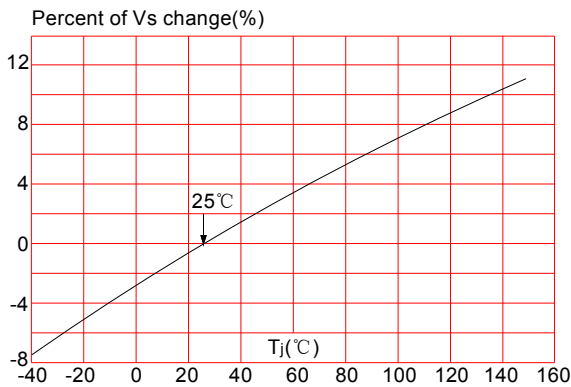
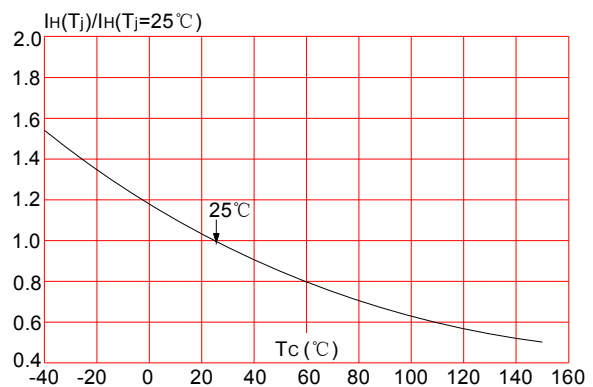


FIG.4: Normalized DC holding current vs. case temperature



TAPE AND REEL SPECIFICATION

PACKAGE	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)
DO214AC/SMA	5,000	80,000	330
DO214AA/SMB	3,000	48,000	330

Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co.,Ltd assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement. Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document is the first version which is made in 23-May.-2015. This document supersedes and replaces all information previously supplied.

is a registered trademark of Jiangsu JieJie Microelectronics Co.,Ltd.

Copyright ©2015 Jiangsu JieJie Microelectronics Co.,Ltd. Printed All rights reserved.