

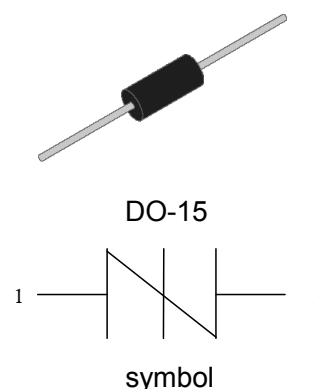


DESCRIPTION:

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 ignitors HID lighting ignitors



FEATURES:

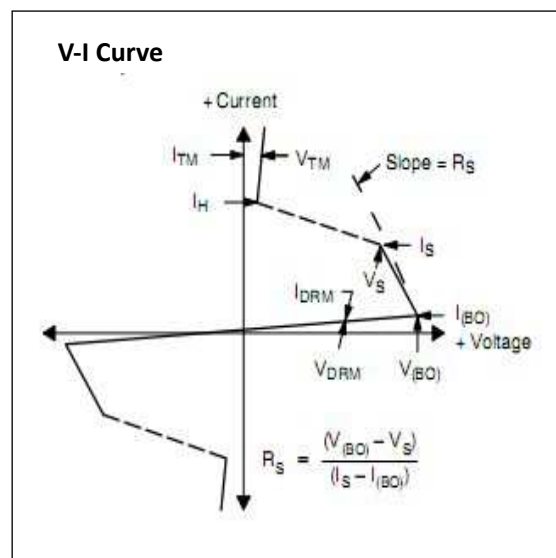
- ✧ Excellent capability of absorbing transient surge
- ✧ Quick response to surge voltage (ns Level)
- ✧ Glass-passivated junctions
- ✧ High voltage lcmp ignitors

ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T_{STG}	-40 to +125	$^{\circ}\text{C}$
Operating junction temperature range	T_J	-40 to +125	$^{\circ}\text{C}$
On-state RMS current	I_T	1.0	A
Maximum surge on-state current non-repetitive one cycle peak value (50Hz)	I_{TSM}	16.7	A
Critical rate-of-rise of on-state current	di_T/dt	80	A/ μs

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$)

Symbol	Parameter
V_{DRM}	Peak off-state voltage
I_{DRM}	Off-state current
V_S	Switching voltage
I_S	Switching current
R_S	Switching resistance
V_T	On-state voltage
I_H	Holding current
V_{BO}	Breakover Voltage
I_{BO}	Breakover current

**ELECTRICAL CHARACTERISTICS** ($T_A=25^{\circ}\text{C}$, continued)

Part Number	$I_{\text{DRM}}@V_{\text{DRM}}$		V_{BO}		I_{BO}	$V_T@I_T=1\text{A}$	I_H	R_S	Marking
	μA	V	V		μA	V	mA	k Ω	
	max	min	min	max	max	max	min	min	
K0900G	1	70	80	97	50	2	10	0.1	DB090
K1050G	1	90	95	113	50	2	10	0.1	DB105
K1200G	1	100	110	125	50	2	10	0.1	DB120
K1300G	1	110	120	138	50	2	10	0.1	DB130
K1400G	1	120	130	146	50	2	10	0.1	DB140
K1500G	1	130	140	170	50	2	10	0.1	DB150
K1800G	1	160	170	195	50	2	10	0.1	DB180
K2000G	1	180	190	215	50	2	10	0.1	DB200BW
K2200G	1	190	205	230	50	2	10	0.1	DB220BW
K2400G	1	200	220	250	50	2	10	0.1	DB240BW
K2600G	1	220	240	270	50	2	10	0.1	DB260BW

ORDERING INFORMATION

Series code K:Sidac	K	xxx	0	G
Median voltage			0: Bi-direction 1: Uni-direction	Package type:DO-15

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) (t_s)	60-180 secs.
Average ramp up rate (Liquidus 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) (Liquidus)	+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)		30 secs. Max
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

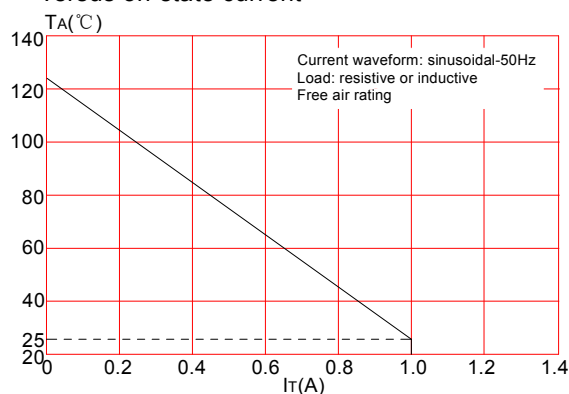


FIG.2: Reflow condition

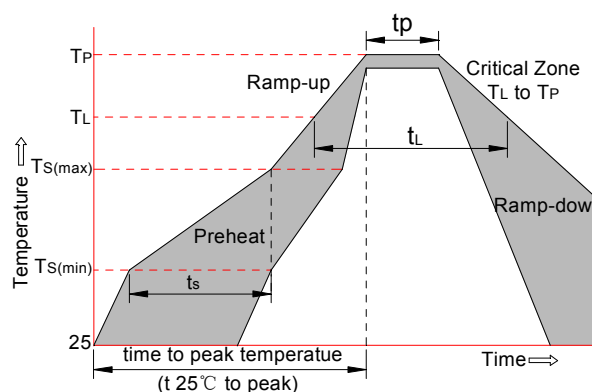
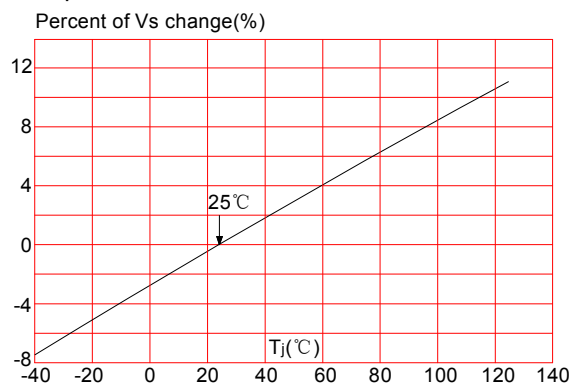
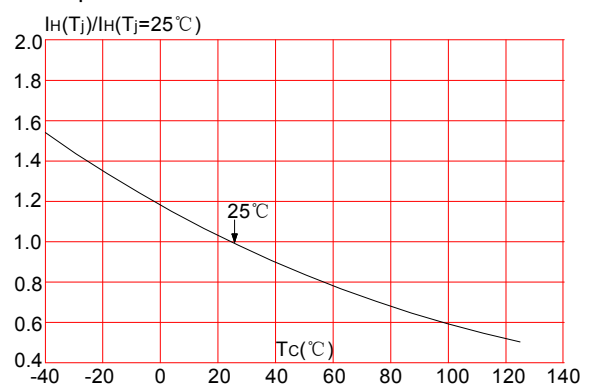
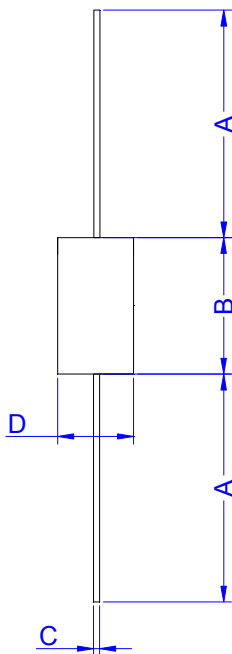


FIG.3: Normalized V_s change vs. junction temperature**FIG.4:** Normalized DC holding current vs. case temperature**PACKAGE MECHANICAL DATA**

DO-15

Ref.	Dimensions			
	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	1.000	-	25.40	-
B	0.228	0.300	5.80	7.62
C	0.022	0.035	0.56	0.89
D	0.102	0.142	2.60	3.60

Part Number	UNIT WEIGHT (g/PCS) typ.	Case Type	Quantity	Packing Option
KxxxxG	0.38	DO-15/DO-204AC	2000	Box

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