

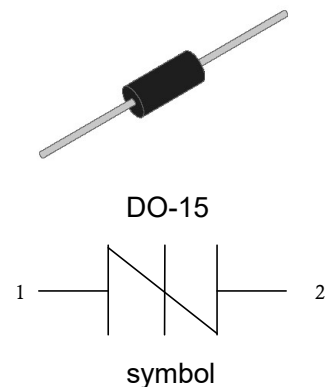


DESCRIPTION:

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:

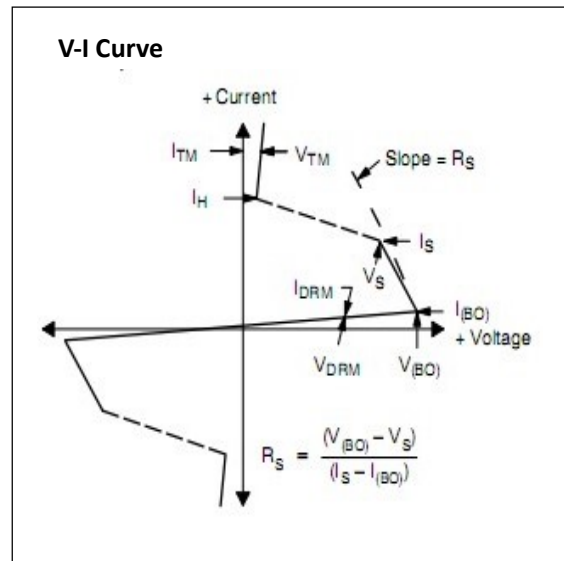
- ✧ Excellent capability of absorbing transient surge
- ✧ Quick response to surge voltage (ns Level)
- ✧ Glass-passivated junctions
- ✧ High voltage lcmp ignitors

ABSOLUTE MAXIMUM RATINGS (T_A=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T _{STG}	-40 to +125	°C
Operating junction temperature range	T _J	-40 to +125	°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°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°C, continued)

Part Number	I _{DRM} @V _{DRM}		V _{BO}		I _{BO}	V _T @ I _T =1A	I _H	R _S	Marking
	μA	V	V		μA	V	mA	kΩ	
	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

<p>K</p> <p>Series code K:Sidac</p>	<p>XXX</p> <p>Median voltage</p>	<p>0</p> <p>0: Bi-direction 1: Uni-direction</p>	<p>G</p> <p>Package type:DO-15</p>
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MARKING



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 (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

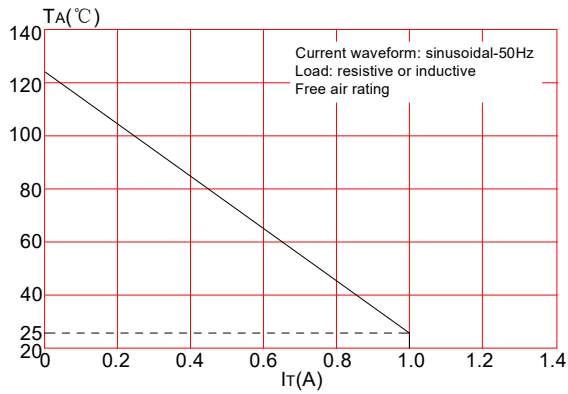


FIG.2: Reflow condition

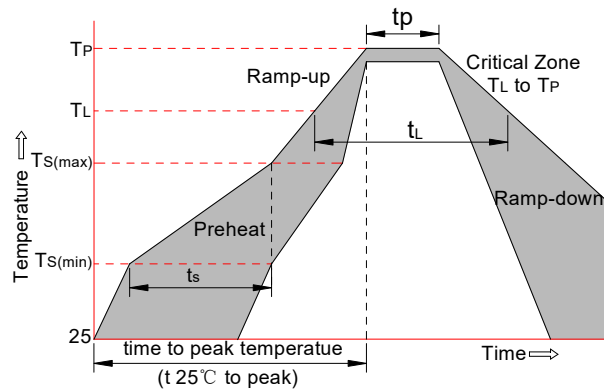


FIG.3: Normalized Vs change vs. junction temperature

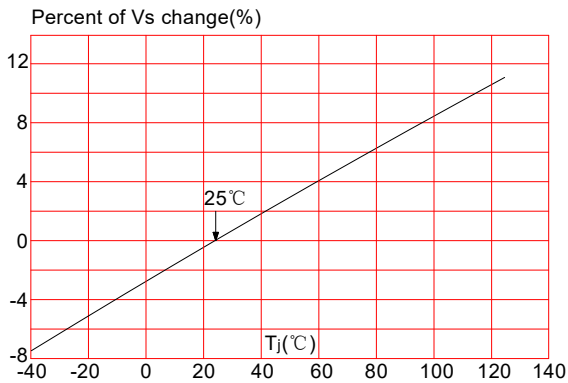
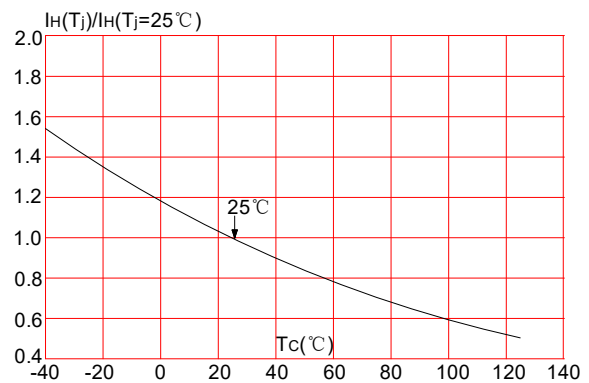


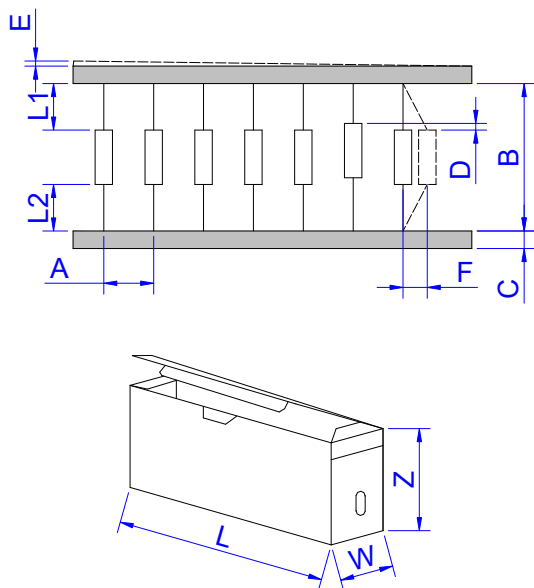
FIG.4: Normalized DC holding current vs. case temperature



PACKAGE MECHANICAL DATA

<p style="text-align: center;">DO-15</p>	Dimensions				
	Ref.	Millimeters		Inches	
		Min.	Max.	Min.	Max.
A	25.40	-	1.000	-	
B	5.80	7.62	0.228	0.300	
C	0.71	0.86	0.028	0.034	
D	2.60	3.60	0.102	0.142	

TAPE AND BOX SPECIFICATION-DO-15



Ref.	Dimensions	
	Millimeters	Inches
A	5.0±0.5	0.197±0.020
B	53.0±1.5	2.087±0.059
C	6.0±0.5	0.236±0.020
D	1.2(MAX)	0.047(MAX)
E	0.8(MAX)	0.031(MAX)
F	1.5(MAX)	0.059(MAX)
L1-L2	1.0(MAX)	0.039(MAX)
W	80±5.0	3.150±0.197
L	250±5.0	9.843±0.197
Z	115±5.0	4.528±0.197

PART No.	UNIT WEIGHT (g/PCS) typ.	PER BOX (PCS)	PER CARTON (PCS)	DESCRIPTION
KxxxxG	0.42	2,000	20,000	Box

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