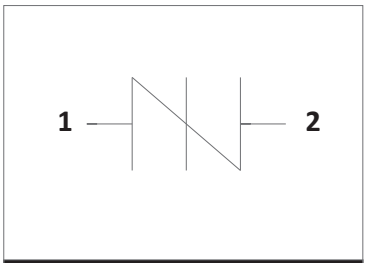
DESCRIPTION

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.

FEATURES

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



SCHEMATIC SYMBOL

APPLICATIONS

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

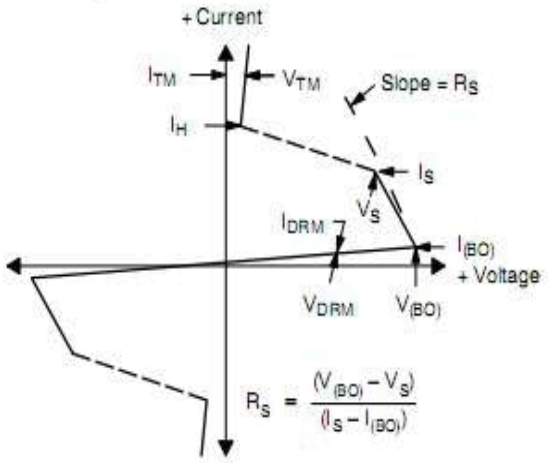
ABSOLUTE MAXIMUM RATINGS (T_A=25°C,RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T_{stg}	-40 to +125	℃
Operating junction temperature range	T_j	-40 to +125	℃
On-state RMS Current	I_T	1	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

ELECTRICAL CHARACTERISTICS (T_A=25℃)

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

V-I Curve



ELECTRICAL CHARACTERISTICS (T_A=25℃, continued)

Part Number	I_{DRM}@V_{DRM}		V_{BO}		I_{BO}	V_T@ I_T= 1A	I_H	R_S	Marking
	μA	V	V		uA	V	mA	kΩ	
	max	min	min	max	max	max	min	min	
SK0900G	1	70	80	97	50	2	10	0.1	DB090
SK1050G	1	90	95	113	50	2	10	0.1	DB105
SK1200G	1	100	110	125	50	2	10	0.1	DB120
SK1300G	1	110	120	138	50	2	10	0.1	DB130
SK1400G	1	120	130	146	50	2	10	0.1	DB140
SK1500G	1	130	140	170	50	2	10	0.1	DB150
SK1800G	1	160	170	195	50	2	10	0.1	DB180
SK2000G	1	180	190	215	50	2	10	0.1	DB200BW
SK2200G	1	190	205	230	50	2	10	0.1	DB220BW
SK2400G	1	200	220	250	50	2	10	0.1	DB240BW
SK2600G	1	220	240	270	50	2	10	0.1	DB260BW

SOLDERING PARAMETERS

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

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

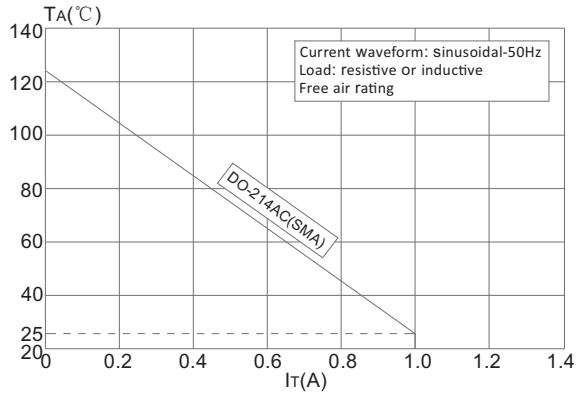


FIG.2: Reflow condition

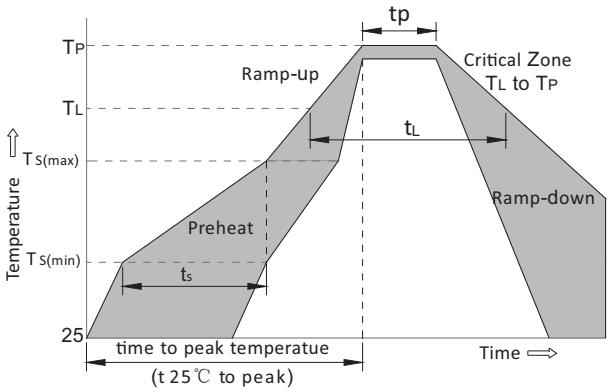


FIG.3:Normalized Vs change vs. junction temperature

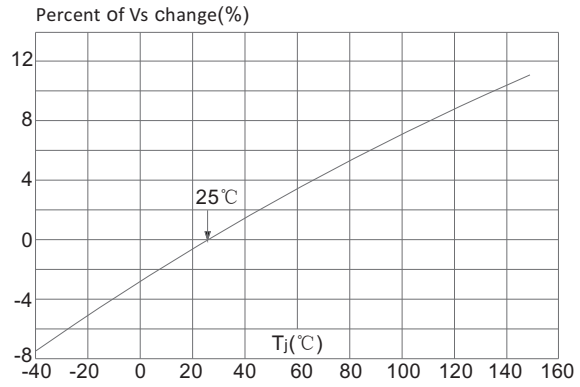
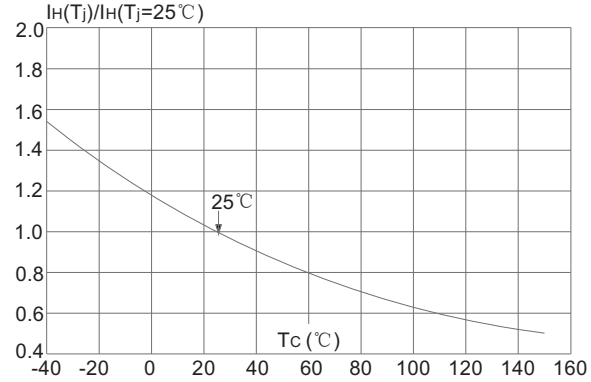
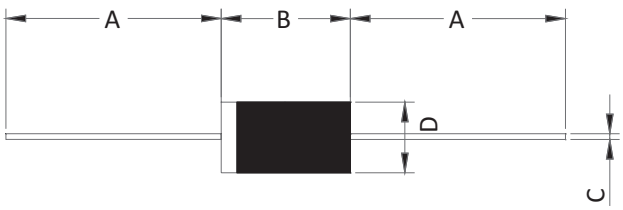


FIG.4: Normalized DC holding current vs. case temperature



PACKAGE MECHANICAL DATA



Ref.	Dimensions			
	Inches		Millimeters	
	Min.	Max.	Min.	Max.
A	1.000	-	25.40	-
B	0.228	0.300	5.80	7.62
C	0.027	0.035	0.69	0.89
D	0.118	0.140	3.00	3.60

ORDERING INFORMATION

Part Number	Case Type	Quantity	Packing Option
SKxxxxG	DO-15/DO-204AC	2000	Box

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