

DESCRIPTION

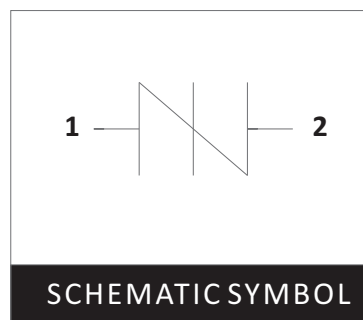
The sidac is a silicon bilateral voltage triggered switch with greater power-handling capabilities than standard diacs. Upon application of a voltage exceeding the sidac breakover voltage point, the sidac switches on through a negative resistance region to a low on-state voltage. Conduction continues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

APPLICATIONS

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



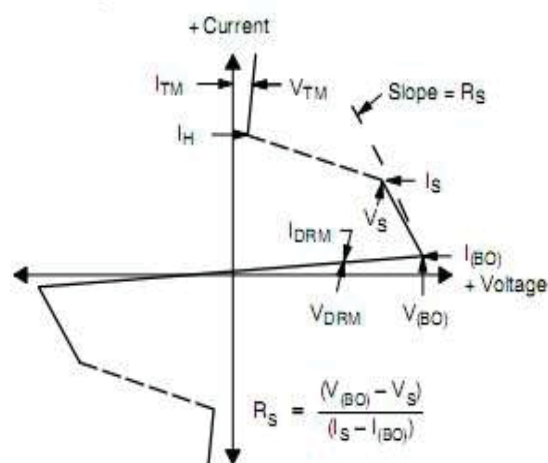
ABSOLUTE MAXIMUM RATINGS (T_A=25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T _{stg}	-40 to +125	°C
Operating junction temperature range	T _j	-40 to +125	°C
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 ($T_A=25\text{ }^{\circ}\text{C}$)

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

V-I Curve

ELECTRICAL CHARACTERISTICS ($T_A=25\text{ }^{\circ}\text{C}$, 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	$\text{k}\Omega$	
	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 °C
	-Temperature Max($T_{s(max)}$)	+200 °C
	-Time (Min to Max) (t_s)	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.
PeakTemp (T_p)		+260(+0/-5) °C
Time within 5 °C of actual PeakTemp (t_p)		8-15 secs.
Ramp - down Rate		6 °C/sec. Max
Time 25 °C to PeakTemp (T_p)		8 min. Max
Do not exceed		+260 °C

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

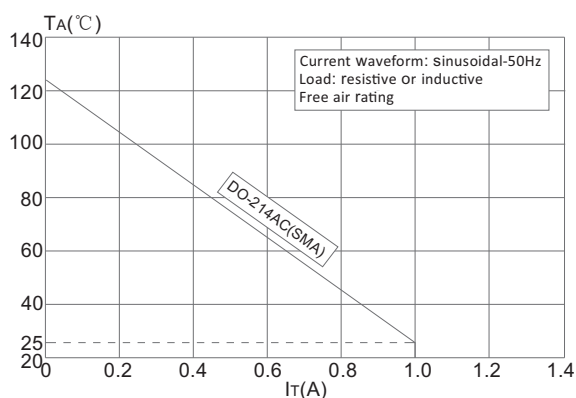


FIG.2: Reflow condition

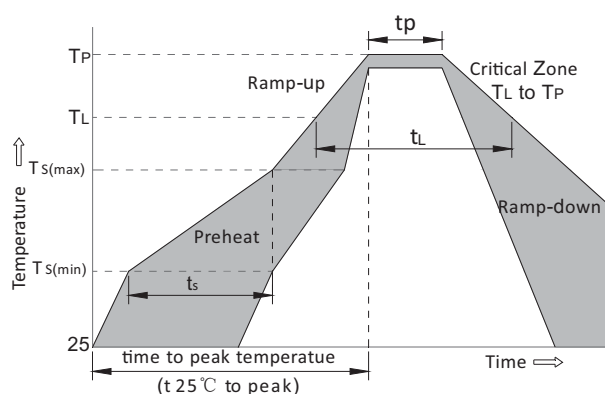
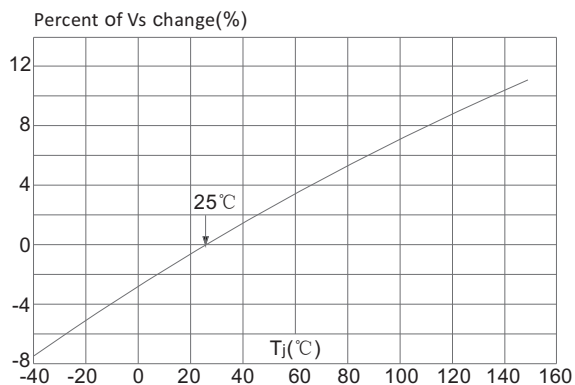
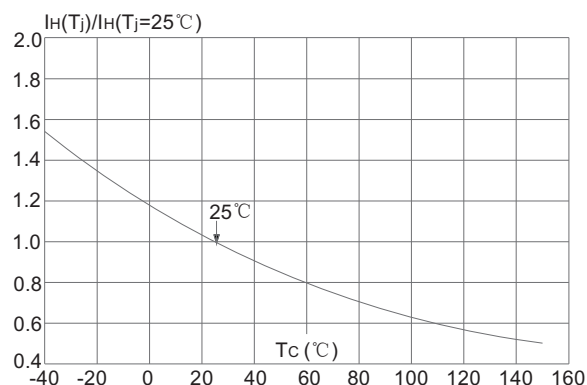
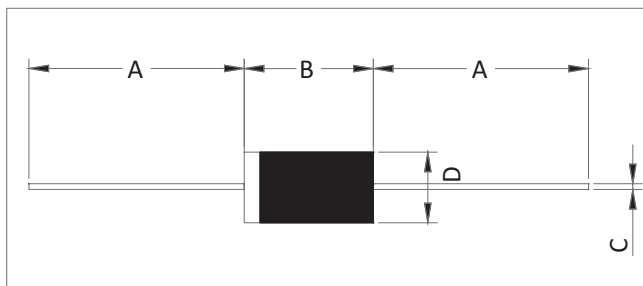


FIG.3: Normalized V_s change vs. junction temperature

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


PACKAGE MECHANICAL DATA



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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