General 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.

Sanyan's offers a voltage range of 79V to 600V in DO-15,TO-92 ,SMA(DO214AC)or SMB(DO-214AA) package.

Sanyan's sidacs feature glass passivated junctions to ensure a rugged and dependable device capable of withstanding harsh environments.

Variations of devices covered in this data sheet are available for custom design applications. Consult the factory for more information.

Applications

- High voltage lamp ignitors
- Natural gas ignitors
- Gas oil ignitors
- High voltage power supplies
- Xenon ignitors
- Over voltae protector
- Fluorescent lighting ignitors
- HID surge current capability

Features

- AC circuit oriented
- Glass-passivated junctions
- High surge current capability

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Electrcal Characteristics (Tamb=25℃)

Part Number	V_{BO}		V_{DRM}	I_{DRM}	V_{TM}	I_T	I_H
	Breakover Voltage(Instantaneous clamping voltage)		Blocking Voltage	Peak Off-state Current at V_{DRM}	Peak On-state Voltage I_T=1A	Continuous On-state DC or RMS Current	Holding Current
	Min.(V)	MAX.(V)	MIN.(V)	MAX.(uA)	MAX.(V)	MAX.(A)	MAX.(mA)
K0900L	80	100	65	10	1.5	1.0	100
K1050L	95	115	75	10	1.5	1.0	100
K1100L	105	120	85	10	1.5	1.0	100
K1200L	110	125	90	10	1.5	1.0	100
K1300L	120	140	95	10	1.5	1.0	100
K1400L	130	145	105	10	1.5	1.0	100
K1500L	140	170	115	10	1.5	1.0	100
K2000L	190	215	150	10	1.5	1.0	100
K2200L	205	230	165	10	1.5	1.0	100
K2400L	220	250	175	10	1.5	1.0	100
K2500L	240	280	190	10	1.5	1.0	100
K3000L	270	330	215	10	1.5	1.0	100
K3500L	320	390	260	10	1.5	1.0	100
K4000L	375	460	310	10	1.5	1.0	100
K4500L	440	530	360	10	1.5	1.0	100
K5000L	505	600	420	10	1.5	1.0	100

Series	I_{PP}			I_{TSM}		Di/dt
	Peak pulse current,T_J<150℃			Peak one Cycle(sinusoidal)Surge Current		Critical Rate of Rise of On-state Cruuent
	10*160us	10*560us	10*1000us			
	Max(A)	Max(A)	Max(A)	60Hz(A)	50Hz(A)	Typical(A/us)
KL	60	35	35	20	16.7	100

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Figure 1:V-I Characteristics

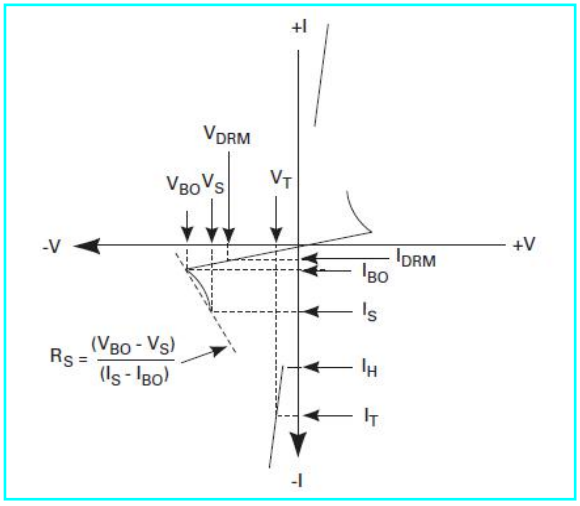


Figure 2:On-state Current vs.On-state Voltage(Typical)

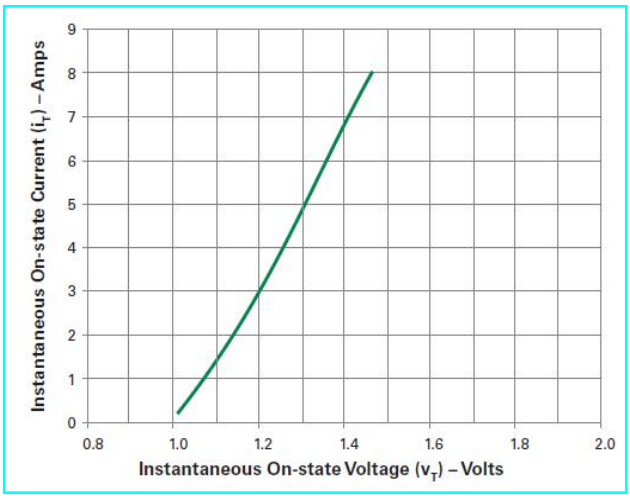


Figure 3:Power Dissipation vs.On-state Current (Typical)

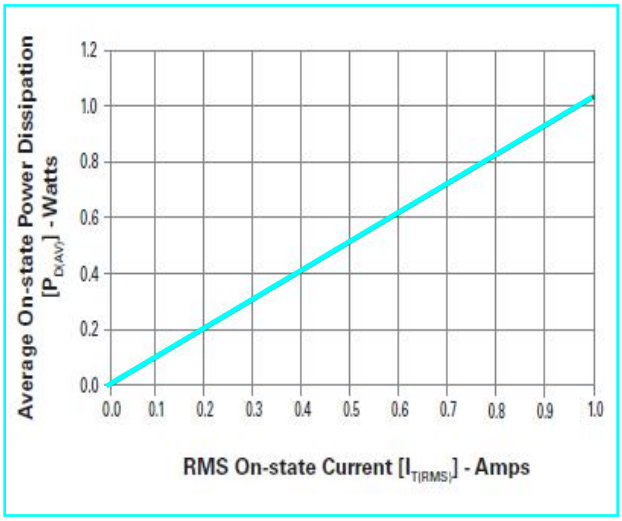


Figure 4:Peak Non-repetitive Surge Current(I_{TSM}) vs.Number of Cycles

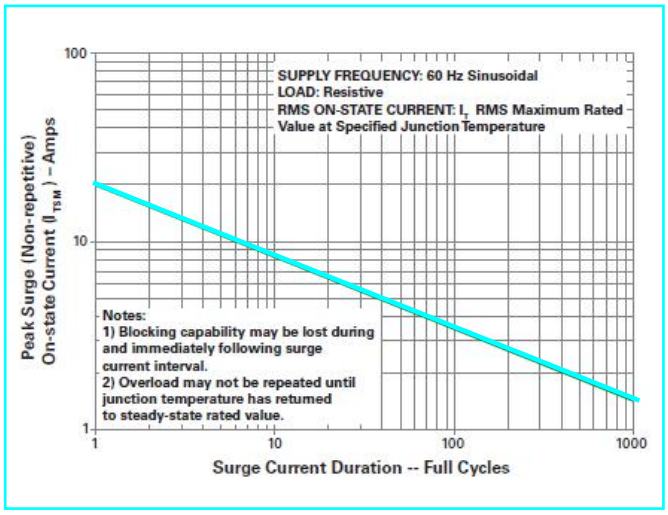


Figure 5:Normalized DC Holding Current vs.Junction Temperature

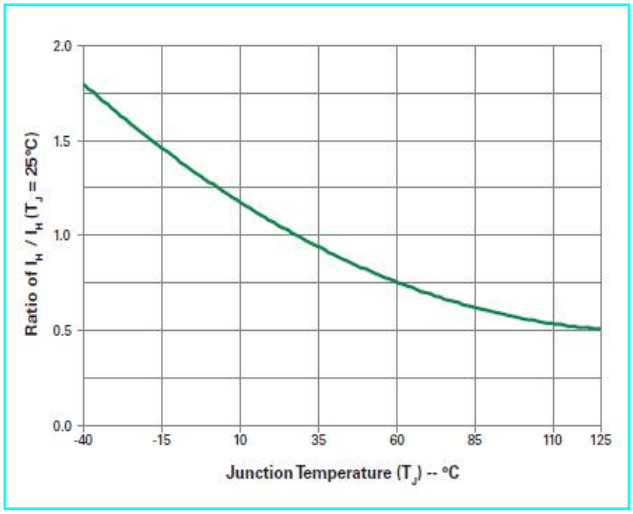
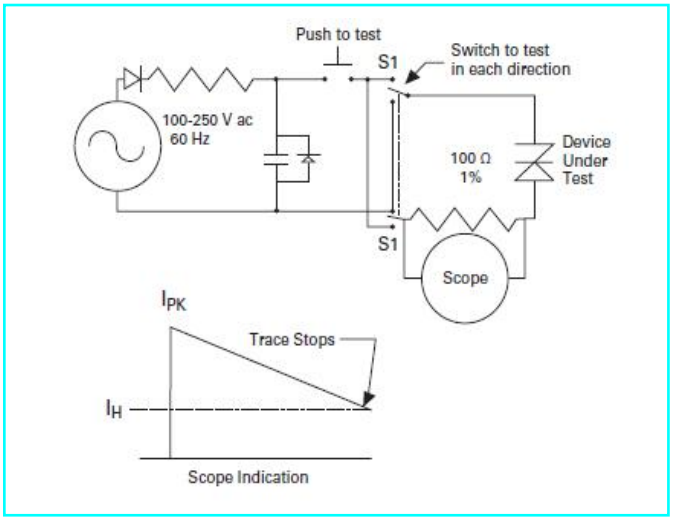


Figure 6:Dynamic Holding Current Test Circuit for SIDACs



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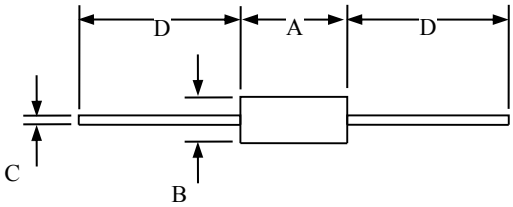
Product Dimensions



DO-15

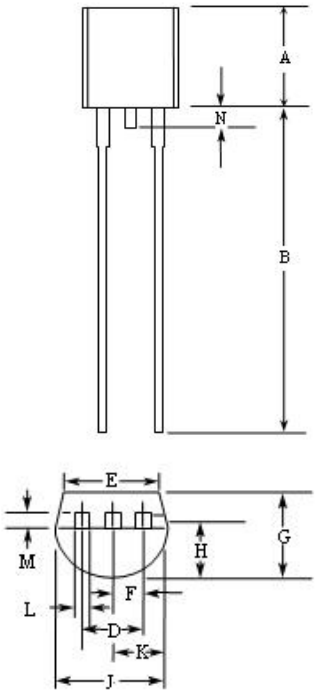
Dimension	Inches		Millimeters		NOTE
	MIN	MAX	MIN	MAX	
A	0.230	0.300	5.80	7.60	
B	0.104	0.140	2.60	3.60	Φ
C	0.026	0.034	0.70	0.90	Φ
D	1.000		25.40		

Summary of Packing Options

Package Type	Description	Packing Quantity	Industry Standard
DO-15	Tape and Reel Pack	DO-15	N/A
		2000PCS	

Product Dimensions

Dime-n sion	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.176	0.196	4.47	4.98
B	0.5		12.7	
D	0.095	0.105	2.41	2.67
E	0.15		3.81	
F	0.046	0.054	1.16	1.37
G	0.135	0.145	3.43	3.68
H	0.088	0.096	2.23	2.44
J	0.176	0.186	4.47	4.73
K	0.088	0.096	2.23	2.44
L	0.013	0.019	0.33	0.48
M	0.013	0.017	0.33	0.43
N		0.06		1.52



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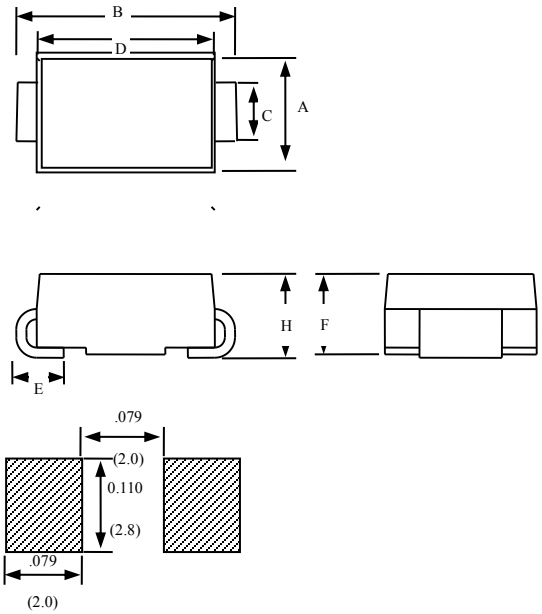
Summary of Packing Options

Package Type	Description	Packing Quantity	Industry Standard
TO-92	Buck Pack	2000 PCS	N/A

Product Dimensions

Dime-nsion	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.098	0.114	2.50	2.90
B	0.188	0.208	4.80	5.28
C	0.055	0.062	1.40	1.60
D	0.157	0.181	4.00	4.60
E	0.030	0.060	0.76	1.52
F	0.078	0.096	2.00	2.44
H	0.080	0.104	2.051	2.643



Summary of Packing Options

Package Type	Description	Packing Quantity	Industry Standard
DO-214AC(SMA)	Embossed Carrier Reel Pack	5000PCS	EIA-481-D

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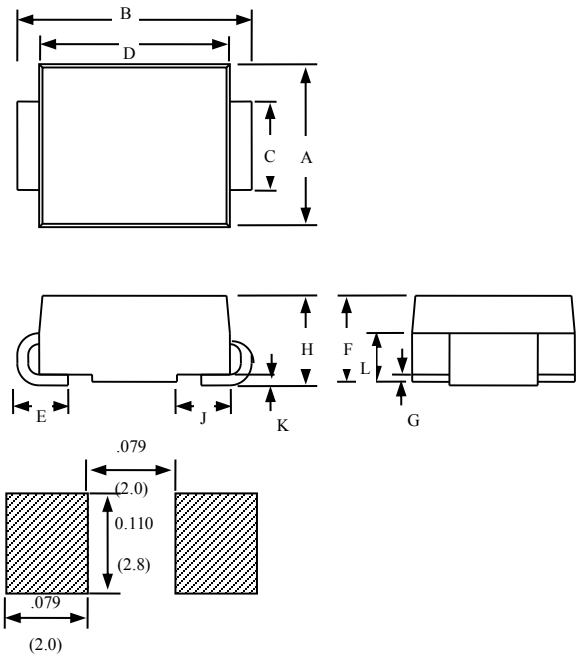
Product Dimensions

Dime-n sion	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.134	0.155	3.40	3.94
B	0.205	0.22	5.21	5.59
C	0.075	0.083	1.90	2.11
D	0.166	0.185	4.22	4.70
E	0.036	0.056	0.91	1.42
F	0.073	0.087	1.85	2.2
G	0.002	0.008	0.05	0.20
H	0.077	0.094	1.95	2.40
J	0.043	0.053	1.09	1.35
K	0.008	0.014	0.20	0.35
L	0.039	0.049	0.99	1.24



Summary of Packing Options

Package Type	Description	Packing Quantity	Industry Standard
DO-214AA(SMB)	Embossed Carrier Reel Pack	3000PCS	EIA-481-D

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