

**SIDAC High Voltage  
Silicon Uni-directional Thyristors**
**SIDAC  
0.3 AMPERE RMS  
105~220 VOLTS**
**FEATURES**

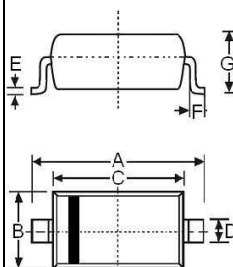
- High pulse current capability
- Glass passivation insure reliable operation
- Maximum dynamic holding current 50mA.
- Compact package, SOD-123 package

**Application**

- Anion Generator
- Pulse generating

**Mechanical Data**

- Terminals: Lead Free Plating
- Polarity: Color band denotes anode
- RoHS 2011/65/EU Compliant

**SOD-123**


SOD-123		
Dim.	Min.	Max.
A	3.55	3.85
B	1.50	1.70
C	2.55	2.85
D	0.45	0.65
E	0.08	0.15
F	0.25	0.45
G	1.05	1.25
H	0.00	0.10
Dimensions in millimeter		

**MAXIMUM RATINGS (T<sub>j</sub>=25 °C, unless otherwise specified)**

Parameter	Test Condition	Symbol	Value	Unit
Peak repetitive off-state voltage	T <sub>J</sub> = -40 to 105°C, Sine Wave, 50 to 60 Hz	V <sub>DRM</sub>	90	V
			180	
On-state RMS current	T <sub>L</sub> = 80 °C, All Conduction Angles	I <sub>t</sub> (RMS)	0.3	A
Peak Non-Repetitive Surge Current	Waveform: 10/1000us, T <sub>j</sub> =25 °C, refer Fig.4	I <sub>TSM</sub>	14	A
Operating junction temperature range		T <sub>j</sub>	-40 ~ +105	°C
Storage temperature range		T <sub>stg</sub>	-40 ~ +125	°C

Rev. 4, Sep-2016, KSXR01

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Thermal resistance – Junction to case	$R_{thjc}$	15	$^{\circ}\text{C}/\text{W}$
Maximum lead Solder Temperature (Lead Length $\geq 1/16$ " from Case, 10s Max)	$T_L$	260	$^{\circ}\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_j=25^{\circ}\text{C}$ , unless otherwise specified)

Parameter	Test condition	Symbol	Min	Typ	Max	Unit
-----------	----------------	--------	-----	-----	-----	------

### OFF CHARACTERISTICS

Peak repetitive forward or Reverse Blocking Current (50 to 60 Hz)	$I_{\text{DRM}}$	---	---	10	$\mu\text{A}$
--	------------------	-----	-----	----	---------------

### ON CHARACTERISTICS

Peak On-State Voltage	$I_T=0.3\text{A}$	$V_{\text{TM}}$	---	1.1	1.5	V
Break Over Voltage	$I_{\text{BO}} = 5\mu\text{A}$ <b>H105H</b> <b>H220H</b>	$V_{\text{BO}}$	95 210	---	110 230	V
Break Over Current	$V_{\text{BO}}=105\text{V}$	$I_{\text{BO}}$	---	5	---	$\mu\text{A}$
Holding Current		$I_{\text{H}}$	---	---	50	mA
Switching Resistance		$R_s$	0.1	---	---	$\text{k}\Omega$

### MARKING INFORMATION



**Note:**

X= Part Number, A=H105H, C=H220H

Y= Year: 0~9

M= Month: 0~9, A, B, C

Electrical Characteristic of SIDAC

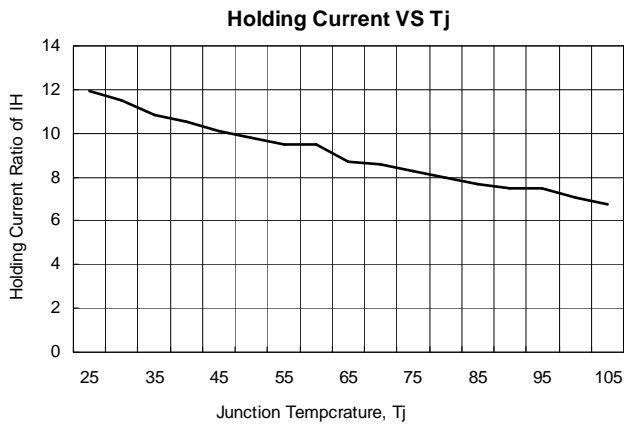


Fig.1

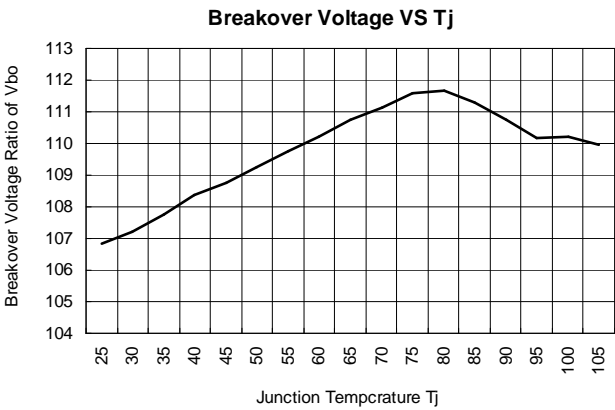


Fig.2

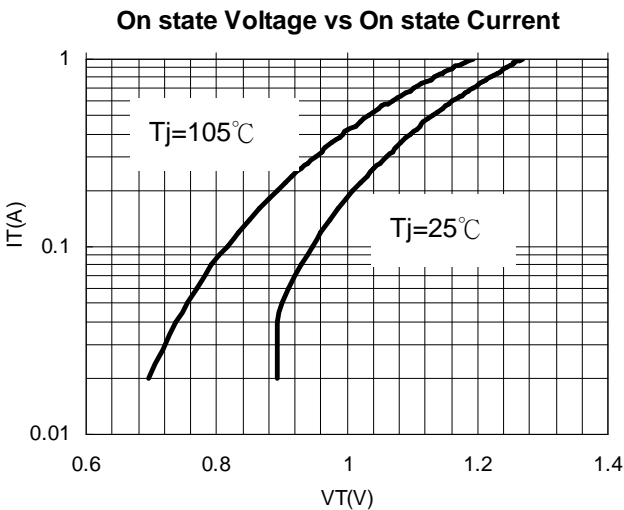


Fig.3

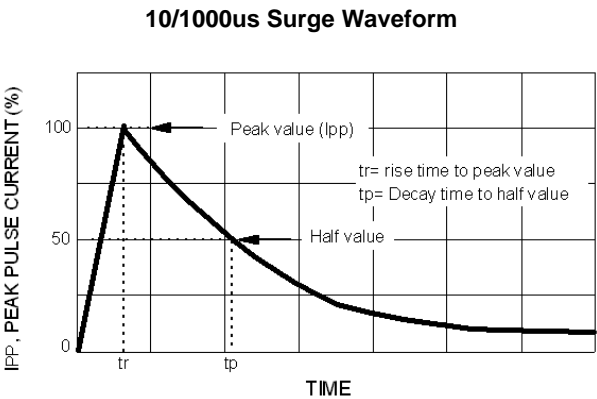


Fig.4

## **Important Notice and Disclaimer**

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.