

**SIDAC HIGH VOLTAGE
SILICON UNIDIRECTIONAL THYRISTORS**

SIDAC 0.3 AMPERE RMS 105 VOLTS

FEATURES

- High pulse current capability
- Glass passivation insure reliable operation
- Maximum dynamic holding current 50mA
- Compact package, SOD-123 package
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

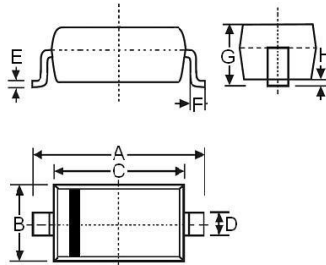
APPLICATION

- Anion generator
- Pulse generating

MECHANICAL DATA

- Terminals: Lead Free Plating
- RoHS 2002/95/EC Compliant

SOD-123



SOD-123		
Dim.	Min.	Max.
A	3.55	3.85
B	1.50	1.70
C	2.60	2.80
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 ($T_J = 25^\circ\text{C}$ unless otherwise specified) (Note 4)

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Peak Repetitive Off-State Voltage ($T_J = -40$ to 105°C , Sine Wave, 50 to 60Hz)	V_{DRM}	90	V
On-State RMS Current ($T_L = 80^\circ\text{C}$, All Conduction Angles)	$I_{T(RMS)}$	0.3	A
Peak Non-Repetitive Surge Current (Waveform: 10/1000 μs , $T_J = 25^\circ\text{C}$, refer to Fig. 4)	I_{TSM}	14	A
Operating Junction Temperature Range	T_J	-40 to +105	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-40 to +125	$^\circ\text{C}$

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

RATING AND CHARACTERISTIC CURVES
H105H

THERMAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Thermal Resistance - Junction to Case	R _{thjc}	15	°C/W
Maximum Lead Solder Temperature (Lead Length ≥ 1/16" from Case, 10s Max)	T _L	260	°C

ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise specified)

OFF CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Peak Repetitive Forward or Reverse Blocking Current, 50 to 60Hz	I _{DRM}	--	--	10	μA

ON CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Peak On-State Voltage, I _T = 0.3A	V _{TM}	--	1.1	1.5	V
Break Over Voltage, I _{BO} = 5μA	V _{BO}	95	--	110	V
Break Over Current, V _{BO} = 105V	I _{BO}	--	5	--	μA
Holding Current	I _H	--	--	50	mA
Switching Resistance	R _S	0.1	--	--	kΩ

RATING AND CHARACTERISTIC CURVES

H105H

Holding Current VS Tj

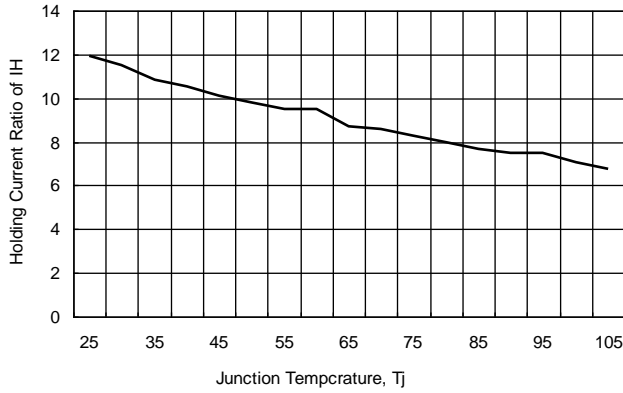


Fig. 1

Breakover Voltage VS Tj

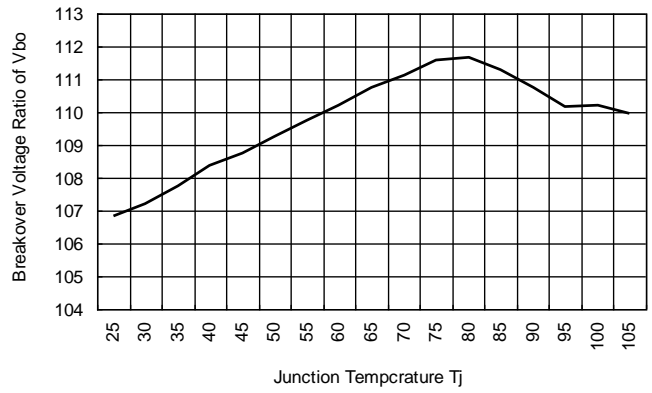


Fig. 2

On state Voltage vs On state Current

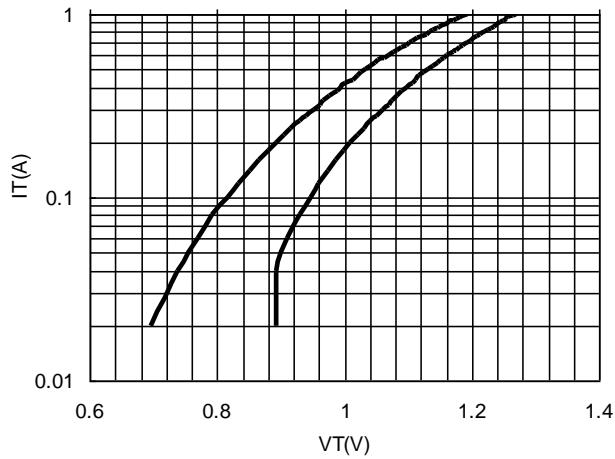


Fig. 3

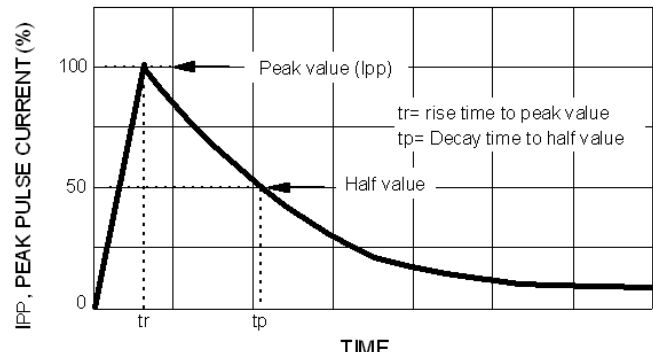


Fig. 4

Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
H105H	SOD-123	3000	T&R
H105H_HF	SOD-123	3000	T&R

Marking Information :

NOTE: Y = Year: 0 to 9

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

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