

**SIDAC HIGH VOLTAGE  
SILLICON UNIDIRECTIONAL THYSISTORS**

**1 AMPERE  
150 VOLTS**

**FEATURES**

- $V_{BO}$  range is from 142 to 157 Vdc
- $V_{DRM}$  with stand 120V
- $I_H$  is under 60 mA
- Compact package for spacing saving.

**Application**

- Gas Igniters

**MECHANICAL DATA**

- Case: JEDEC DO-214AC molded plastic
- Terminals: Lead Free Plating
- Component in accordance to RoHs 2011/65/EU
- UL Recognition File # E219635

**SMA**

SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	1.96	2.40
H	0.76	1.52

All Dimensions in millimeter

**Marking**

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**  
Ratings at 25°C ambient temperature unless otherwise specified.

**ABSOLUTE RATING**

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Peak repetitive off-state voltage	T <sub>J</sub> = -40 to 125°C, sine wave, 50 to 60 Hz	$V_{DRM}$	120	V
On-state RMS current	T <sub>L</sub> = 80°C, all conduction angles	$I_{T(RMS)}$	1	A
Pulse on-state current	T <sub>a</sub> =25°C, pulse width to = 10us, sine wave, repetitive peak value	f=5Hz	280	A
		f=60Hz	120	
Maximum lead solder temperature (Lead length ≥ 1/16 " from case, 10s max)		T <sub>L</sub>	260	°C
Operating junction temperature range		T <sub>J</sub>	-40 ~ +125	°C
Storage temperature range		T <sub>STG</sub>	-40 ~ +150	°C

**THERMAL PERFORMANCE**

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance junction to case	R <sub>thJc</sub>	15	°C/W

**OFF CHARACTERISTICS**

PARAMETER	SYMBOL	MAX	UNIT
Peak repetitive forward or reverse blocking current (50 to 60 Hz) $V_{DRM}=120V$	$I_{DRM}$	10	uA

**ON CHARACTERISTICS**

PARAMETER	TEST CONDITION	SYMBOL	MIN	TYP.	MAX	UNIT
Peak on-state voltage	I <sub>T</sub> = 1 A	$V_{TM}$	--	1.1	1.5	V
Break over voltage	I <sub>BO</sub> = 5 uA	$V_{BO}$	142	150	157	V
Break over current		$I_{BO}$	--	--	200	uA
Holding current		$I_H$	--	--	60	mA
Switching resistance		R <sub>s</sub>	0.1	--	--	kΩ

**ON CHARACTERISTICS**

PARAMETER	SYMBOL	MIN	TYP.	MAX	UNIT
Critical rate of rise of on-state current	di/dt	--	80	--	A/uS

**Note :**  
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.

REV-2, JUN.-2017, KSXA03

## RATING AND CHARACTERISTIC CURVES SD1A150A

Fig.1- TYPICAL FORWARD VOLTAGE

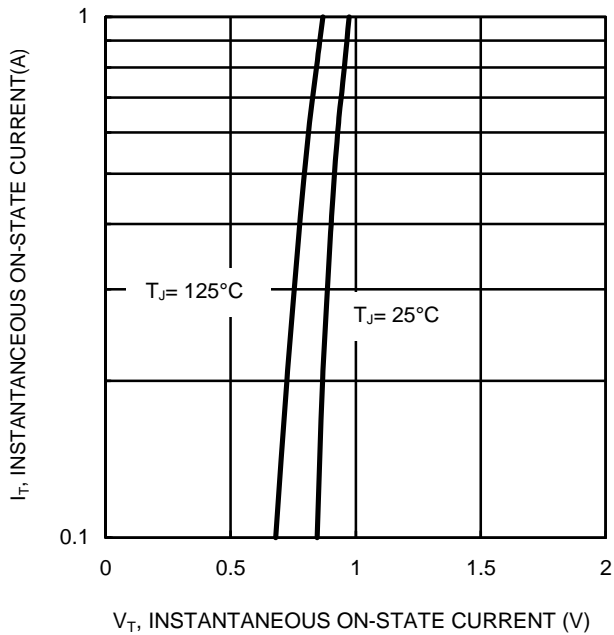


Fig.2- TYPICAL POWER DISSIPATION

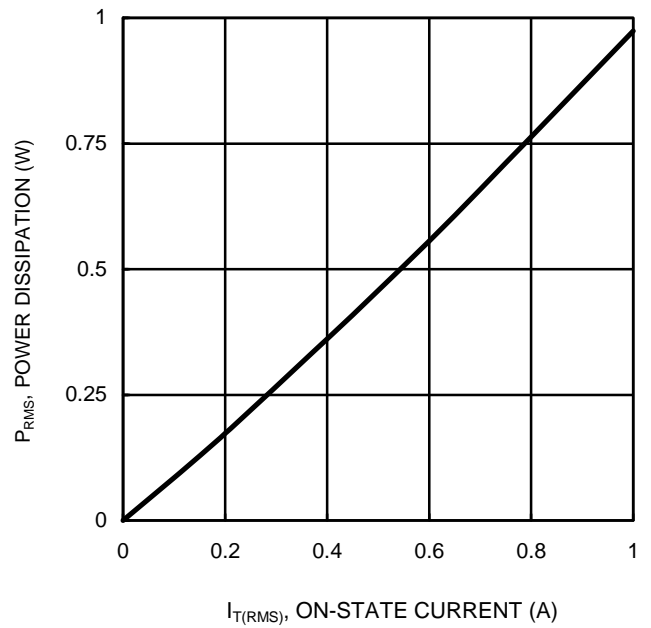


FIG.3- TYPICAL BREAKOVER VOLTAGE

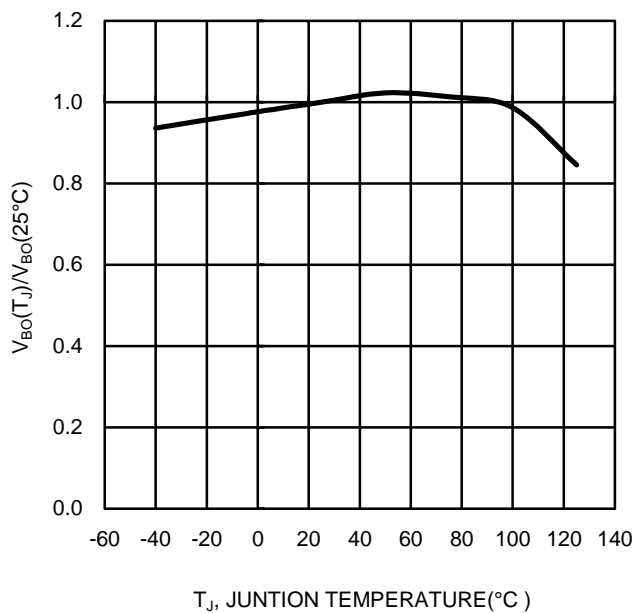
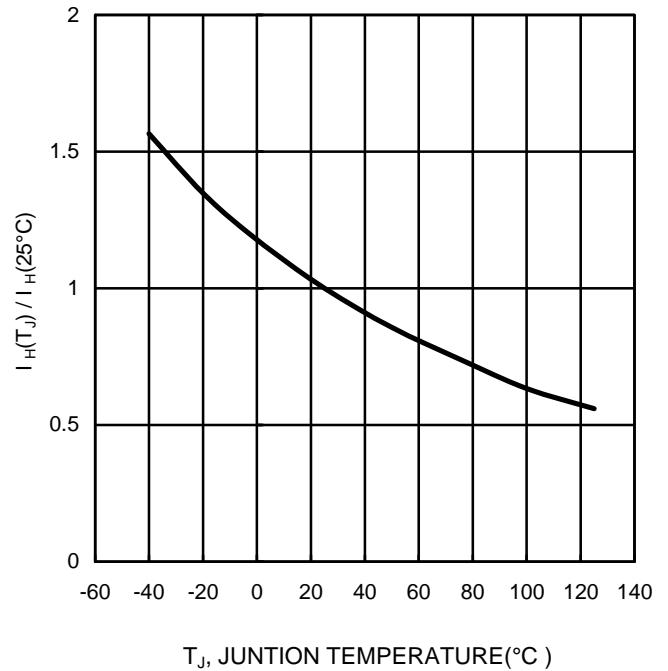


Fig.4- TYPICAL HOLDING CURRENT



### **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.