LITE-ON SEMICONDUCTORS

H105C

SIDAC High Voltage Silicon Uni-directional Thyristors

SIDAC
0.25 AMPERE RMS
105 VOLTS

FEATURES

- •High pulse current capability
- •Glass passivation insure reliable operation
- •Maximum dynamic holding current 50mA.
- •Compact package, SOT-23 package

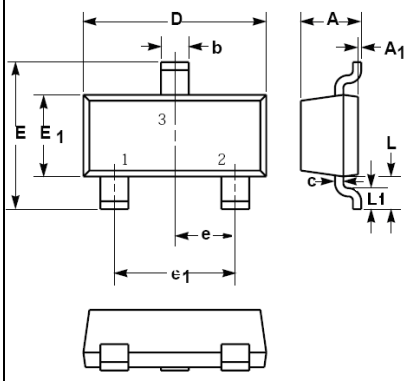
Application

- •Anion Generator
- •Pulse generating

Mechanical Data

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

SOT-23



SOT-23		
Dim.	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	2.25	2.55
E1	1.20	1.40
e	0.95 Typ.	
e1	1.80	2.00
L	0.55 Ref.	
L1	0.30	0.50
Dimensions in millimeter		

PIN ASSIGNMENT	
1	MT2
2	NC
3	MT1

MAXIMUM RATINGS (Tj=25 ℃, unless otherwise specified)

Parameter	Test Condition	Symbol	Value	Unit
Peak repetitive off-state voltage	TJ= -40 to 105℃, Sine Wave, 50 to 60 Hz	V_{DRM}	90	V
On-state RMS current	TL= 80 ℃, All Conduction Angles	$I_{t(RMS)}$	0.25	A
Peak Non-Repetitive Surge Current	Waveform: 10/1000us, Tj=25 ℃, refer Fig.4	I_{TSM}	14	A
Operating junction temperature range		Tj	-40 ~ +105	°C
Storage temperature range		Tstg	-40 ~ +125	°C
		Rev. 1, Nov-2013, KSXR02		

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.

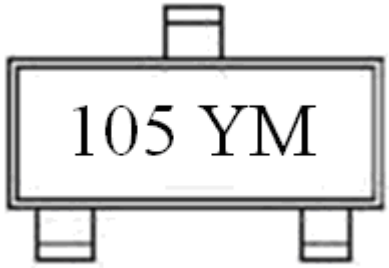
THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Thermal resistance – Junction to case	Rthjc	15	°C/W
Maximum lead Solder Temperature (Lead Length≧ 1/16 ” from Case, 10s Max)	T_L	260	°C

ELECTRICAL CHARACTERISTICS (Tj=25°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_{DRM}	---	---	10	uA
ON CHARACTERISTICS						
Peak On-State Voltage	I_T =0.3A	V_{TM}	---	1.1	1.5	V
Break Over Voltage	IBO = 5uA	V_{BO}	95	---	110	V
Break Over Current	VBO =105V	I_{BO}	---	5	---	mA
Holding Current		I_H	---	---	50	mA
Switching Resistance		Rs	0.1	---	---	kΩ

MARKING INFORMATION



NOTE: Y= Year: 0~9

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

Electrical Characteristic of SIDAC

Holding Current VS. Tj

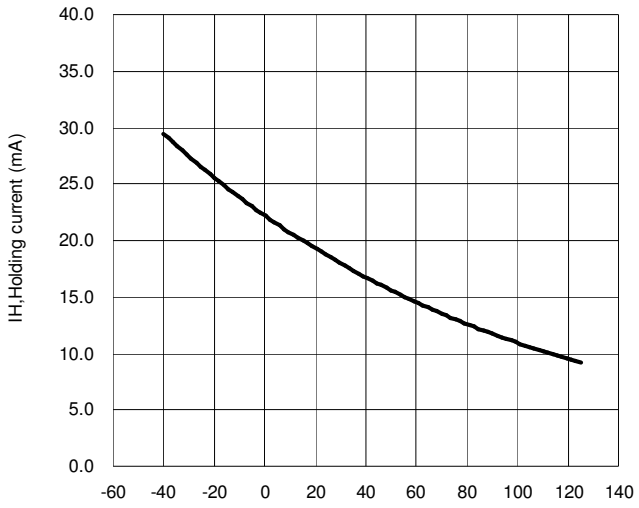


Fig.1, Tj, Juction temperature (℃)

Breakover Voltage VS. Tj

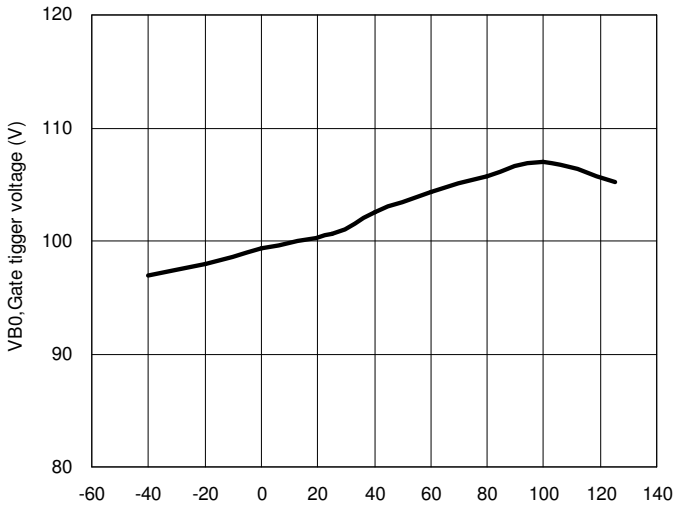


Fig.2, Tj, Juction temperature (℃)

On State Voltage vs. On State Current

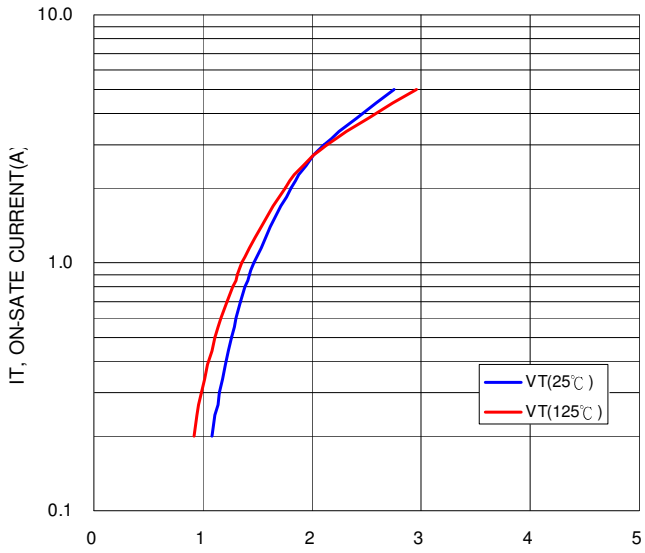


Fig.3, VT, ON-STATE VOLTAGE(V)

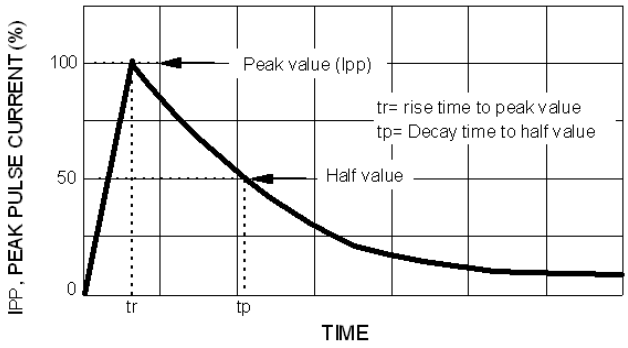


Fig.4, 10/1000us Surge Waveform

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