

DIH105C

SIDAC + Diode Silicon Uni-directional

SIDAC
0.2 AMPERE RMS
105 VOLTS

FEATURES

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

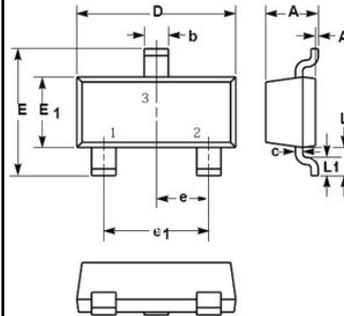
Application

- Anion Generator
- Pulse generating

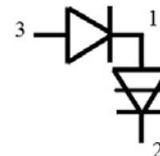
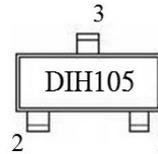
Mechanical Data

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



SIDAC PIN ASSIGNMENT	
2	Cathode
1	Anode
DIODE PIN ASSIGNMENT	
1	Cathode
3	Anode

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 _J = -40 to 125 °C, Sine Wave, 50 to 60 Hz	V _{DRM}	90	V
On-State RMS Current	T _L = 80 °C, All Conduction Angles	I _t (RMS)	0.2	A
Pulse On-State Current (SIDAC)	Waveform: 10/1000us, T _j = 25 °C	I _{TSM}	3	A
Peak Forward Surge Current (Diode)	8.3ms single half sine-wave @ T _j = 25 °C	I _{FSM}	5	A
Operating Junction Temperature Range		T _j	-40 ~ +125	°C
Storage Temperature Range		T _{stg}	-40 ~ +150	°C

REV-0, JUN-2015, KSXR04

RATING AND CHARACTERISTIC CURVES

DIH105C

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
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
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OFF CHARACTERISTICS

SIDAC

Peak repetitive forward or Reverse Blocking Current $V_{DRM} = 90\text{V}$ (pin1 to pin2)	I_{DRM}	---	---	10	μA
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ON CHARACTERISTICS

SIDAC

Peak On-State Voltage	$I_T=0.2\text{A}$ (pin1 to pin2)	V_{TM}	---	1.1	1.5	V
Break Over Voltage	$I_{BO}=5\mu\text{A}$ (pin1 to pin2)	V_{BO}	95	---	110	V
Holding Current	(pin1 to pin2)	I_H	---	30	50	mA

Diode

Breakdown Voltage	$I_R=5\mu\text{A}$ (pin1 to pin3)	V_B	600	---	---	V
Forward Voltage	$I_F=0.2\text{A}$ (pin3 to pin1)	V_F	---	---	1.5	V
Leakage Current	$V_R=600\text{V}$ (pin1 to pin3)	I_R	---	---	5	μA

RATING AND CHARACTERISTIC CURVES DIH105C

Fig.1- TYPICAL ON-STATE VOLTAGE

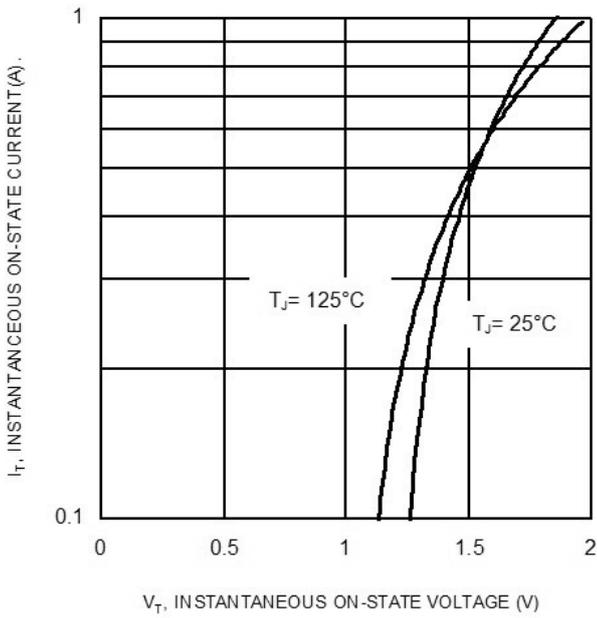


Fig.2- TYPICAL POWER DISSIPATION

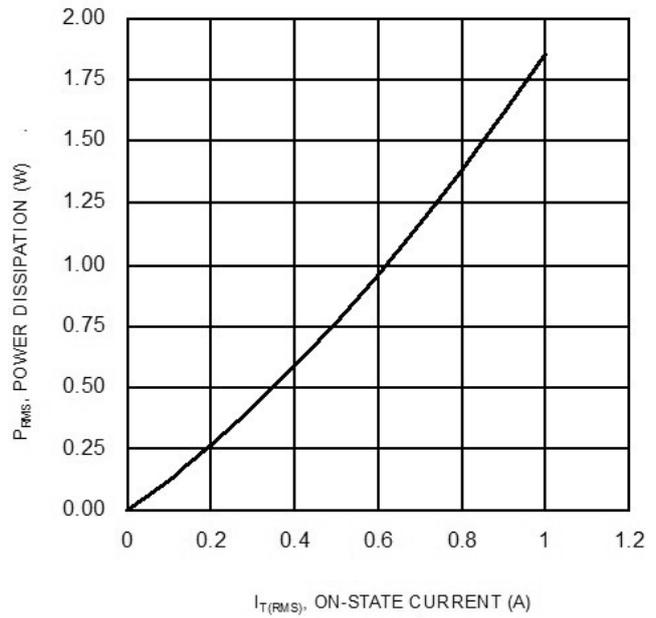


Fig.3- TYPICAL BREAKOVER VOLTAGE

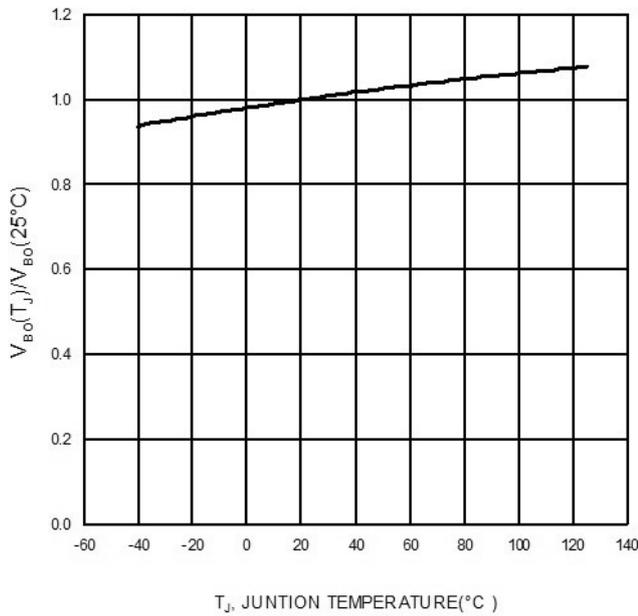


Fig.4- TYPICAL HOLDING CURRENT

