

# 1SS383T1G, 1SS383T2G

Preferred Device

## Dual Schottky Diode

Dual 40 V, 300 mA Low  $V_F$  Schottky Diodes in 4-lead SC-82 package.

### Features

- Low Forward Voltage:  $V_F = 0.48$  V (typ) @  $I_F = 100$  mA
- Low Reverse Current:  $I_R = 5$   $\mu$ A (max)
- Pb-Free Package May be Available. The G-Suffix Denotes a Pb-Free Lead Finish

### MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

Rating	Symbol	Max	Unit
Continuous Reverse Voltage	$V_R$	40	V
Maximum Peak Forward Current*	$I_{FM}$	300	mA
Peak Forward Surge Current Pulse Width = 10 $\mu$ s	$I_{FM(\text{surge})}$	500	mA

\*Both Devices Active

### MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ )

Rating	Symbol	Max	Unit

### THERMAL CHARACTERISTICS

Characteristic (Both Junctions Heated)	Symbol	Max	Unit
Total Device Dissipation Derate above $25^\circ\text{C}$ $T_A = 25^\circ\text{C}$	$P_D$	200 (Note 1) 1.6 (Note 1)	mW mW/ $^\circ\text{C}$
Thermal Resistance Junction-to-Ambient	$R_{\theta JA}$	625 (Note 1)	$^\circ\text{C}/\text{W}$
Junction and Storage Temperature	$T_J, T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

1. FR-4 @ Minimum Pad.

### ELECTRICAL CHARACTERISTICS

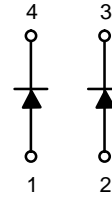
( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Forward Voltage ( $I_F = 1.0$ mA) ( $I_F = 10$ mA) ( $I_F = 100$ mA)	$V_F$	-	280 360 540	- - 600	mV
Reverse Current ( $V_R = 40$ V)	$I_R$	-	-	5	$\mu$ A
Capacitance ( $V_R = 0$ , $f = 1.0$ MHz)	$C_D$	-	-	25	pF



ON Semiconductor®

<http://onsemi.com>



SC-82  
CASE 900AA

### MARKING DIAGRAM



AE = Specific Device Code  
D = Date Code

### ORDERING INFORMATION

Device	Package	Shipping†
1SS383T1G	SC-82	4 mm pitch 3000/Tape & Reel
1SS383T2G	SC-82	4 mm pitch 3000/Tape & Reel

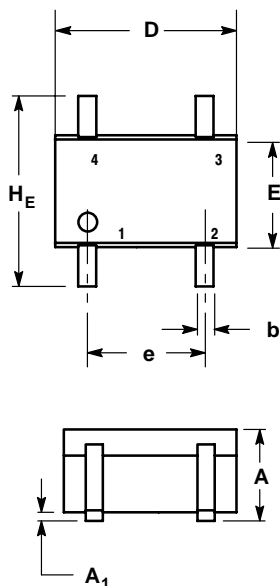
†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

Preferred devices are recommended choices for future use and best overall value.

# 1SS383T1G, 1SS383T2G

## PACKAGE DIMENSIONS

SC-82, 4 LEAD, GULL WING  
CASE 900AA-01  
ISSUE 0




### NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS.

DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.80	0.90	1.00	0.032	0.035	0.04
A <sub>1</sub>	0	---	0.10	0	---	0.004
b	0.10	0.20	0.30	0.004	0.008	0.012
C	0.10	0.18	0.25	0.004	0.007	0.010
D	1.80	2.00	2.20	0.071	0.079	0.087
E	1.15	1.25	1.35	0.045	0.049	0.053
e	1.30 BSC			0.051 BSC		
H <sub>E</sub>	2.00	2.10	2.20	0.079	0.083	0.087
L	0.10	0.20	0.30	0.004	0.008	0.012

### STYLE 1:

- PIN 1. ANODE 1
- ANODE 2
- CATHODE 2
- CATHODE 1

ON Semiconductor and  are registered trademarks of Semiconductor Components Industries, LLC (SCILLC). SCILLC reserves the right to make changes without further notice to any products herein. SCILLC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does SCILLC assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. "Typical" parameters which may be provided in SCILLC data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. SCILLC does not convey any license under its patent rights nor the rights of others. SCILLC products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the SCILLC product could create a situation where personal injury or death may occur. Should Buyer purchase or use SCILLC products for any such unintended or unauthorized application, Buyer shall indemnify and hold SCILLC and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that SCILLC was negligent regarding the design or manufacture of the part. SCILLC is an Equal Opportunity/Affirmative Action Employer. This literature is subject to all applicable copyright laws and is not for resale in any manner.

### PUBLICATION ORDERING INFORMATION

#### LITERATURE FULFILLMENT:

Literature Distribution Center for ON Semiconductor  
P.O. Box 5163, Denver, Colorado 80217 USA

Phone: 303-675-2175 or 800-344-3860 Toll Free USA/Canada

Fax: 303-675-2176 or 800-344-3867 Toll Free USA/Canada

Email: [orderlit@onsemi.com](mailto:orderlit@onsemi.com)

N. American Technical Support: 800-282-9855 Toll Free  
USA/Canada

Japan: ON Semiconductor, Japan Customer Focus Center

2-9-1 Kamimeguro, Meguro-ku, Tokyo, Japan 153-0051

Phone: 81-3-5773-3850

ON Semiconductor Website: <http://onsemi.com>

Order Literature: <http://www.onsemi.com/litorder>

For additional information, please contact your  
local Sales Representative.