

1SS383T1G

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: $I_R = 5$ μ A (max)
- This is a Pb-Free Device*

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 μ s | $I_{FM}(\text{surge})$ | 500 | mA |

THERMAL CHARACTERISTICS

| Characteristic (Both Junctions Heated) | Symbol | Max | Unit |
|---|-----------------|------------------------------------|----------------------------|
| Total Device Dissipation $T_A = 25^\circ\text{C}$ Derate above 25°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_{stg} | -55 to +150 | $^\circ\text{C}$ |

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

*Both Devices Active

1. FR-4 @ Minimum Pad.

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

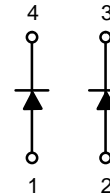
| Characteristic | Symbol | Min | Typ | Max | Unit |
|---|--------|-----|-------------------|----------|---------|
| Forward Voltage ($I_F = 1.0$ mA) ($I_F = 10$ mA) ($I_F = 100$ mA) | V_F | - | 280 360 540 | - 600 | mV |
| Reverse Current ($V_R = 40$ V) | I_R | - | - | 5 | μ A |
| Capacitance ($V_R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

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.



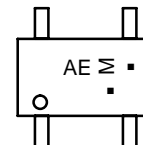
ON Semiconductor®

<http://onsemi.com>



SC-82
CASE 900AA

MARKING DIAGRAM



AE = Specific Device Code

M = Date Code

■ = Pb-Free Package

(Note: Microdot may be in either location)

ORDERING INFORMATION

| Device | Package | Shipping† |
|-----------|--------------------|------------------|
| 1SS383T1G | SC-82 (Pb-Free) | 3000/Tape & Reel |

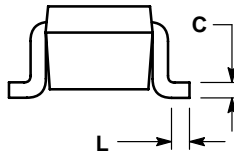
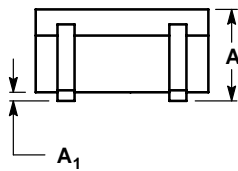
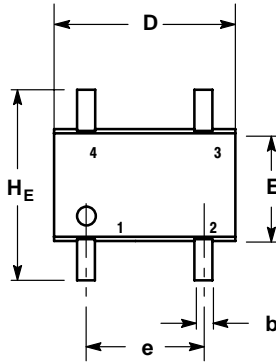
†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

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

1SS383T1G

PACKAGE DIMENSIONS

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




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 ₁ | 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 _E | 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:

1. ANODE 1
2. ANODE 2
3. CATHODE 2
4. CATHODE 1

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