

1SS355

SILICON EPITAXIAL PLANAR SWITCHING DIODES

FEATURES

- Small plastic package suitable for surface mounted design
- High reliability with high surge current handling capability

APPLICATIONS

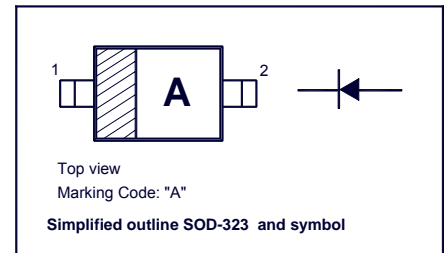
- High speed switching

DESCRIPTION

- Silicon planar zener diode in a small plastic SMD SOD-323 package

PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1 | Cathode |
| 2 | Anode |

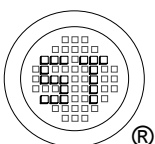


Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Value | Unit |
|---------------------------|-------------|---------------|------------------|
| Peak Reverse Voltage | V_{RM} | 90 | V |
| DC Reverse Voltage | V_R | 80 | V |
| Peak Forward Current | I_{FM} | 225 | mA |
| Mean Rectifying Current | I_O | 100 | mA |
| Surge Current (1 s) | I_{surge} | 500 | mA |
| Junction Temperature | T_J | 125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | - 55 to + 125 | $^\circ\text{C}$ |

Electrical Characteristics ($T_a = 25\text{ }^\circ\text{C}$)

| Parameter | Symbol | Max. | Unit |
|---|----------|------|---------------|
| Forward Voltage at $I_F = 100\text{ mA}$ | V_F | 1.2 | V |
| Reverse Current at $V_R = 80\text{ V}$ | I_R | 0.1 | μA |
| Capacitance between Terminals at $V_R = 0.5\text{ V}$, $f = 1\text{ MHz}$ | C_T | 3 | pF |
| Reverse Recovery Time at $V_R = 6\text{ V}$, $I_F = 10\text{ mA}$, $R_L = 100\ \Omega$ | t_{rr} | 4 | ns |



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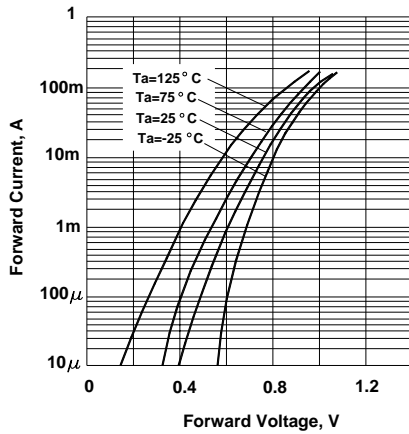
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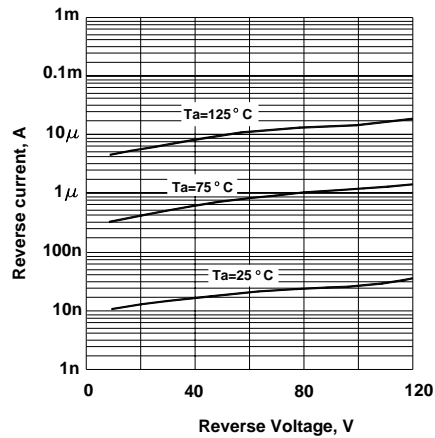
ISO/TS 16949 : 2002 Certificate No. 05103
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Dated : 12/05/2006

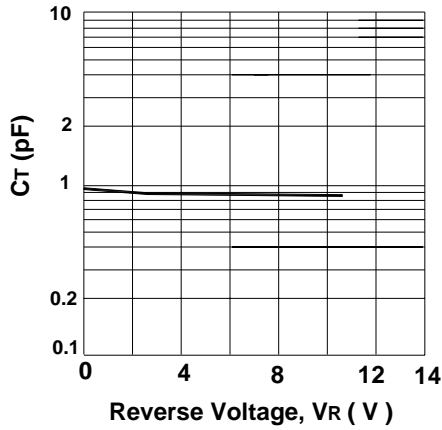
Forward Characteristics



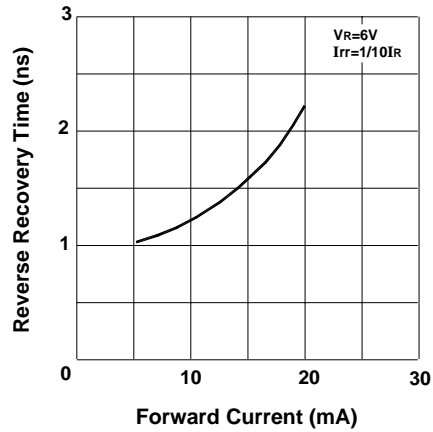
Reverse Characteristics



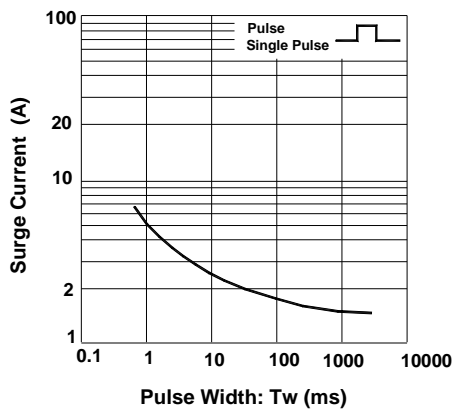
Capacitance between terminals characteristics



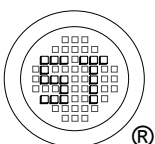
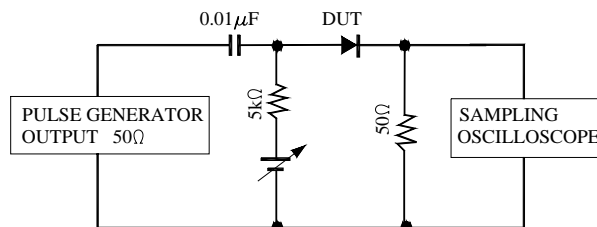
Reverse Recovery Time Characteristics



Surge Current Characteristics



Reverse Recovery Time Measurement Circuit



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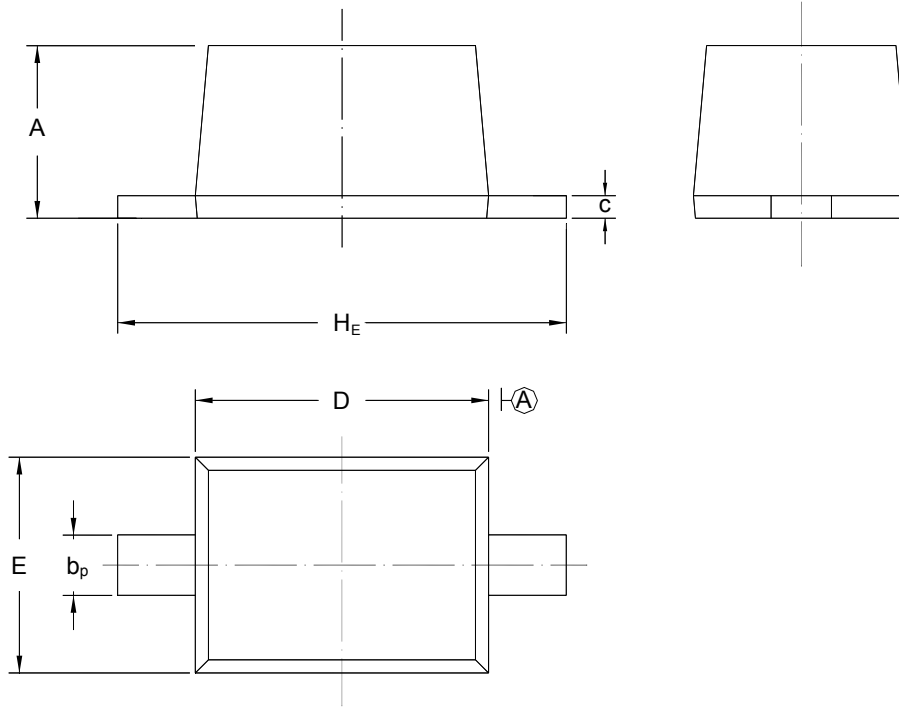
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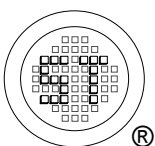
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A | b _p | C | D | E | H _E |
|------|--------------|----------------|--------------|--------------|--------------|----------------|
| mm | 1.10 0.80 | 0.40 0.25 | 0.15 0.00 | 1.80 1.60 | 1.35 1.15 | 2.80 2.30 |



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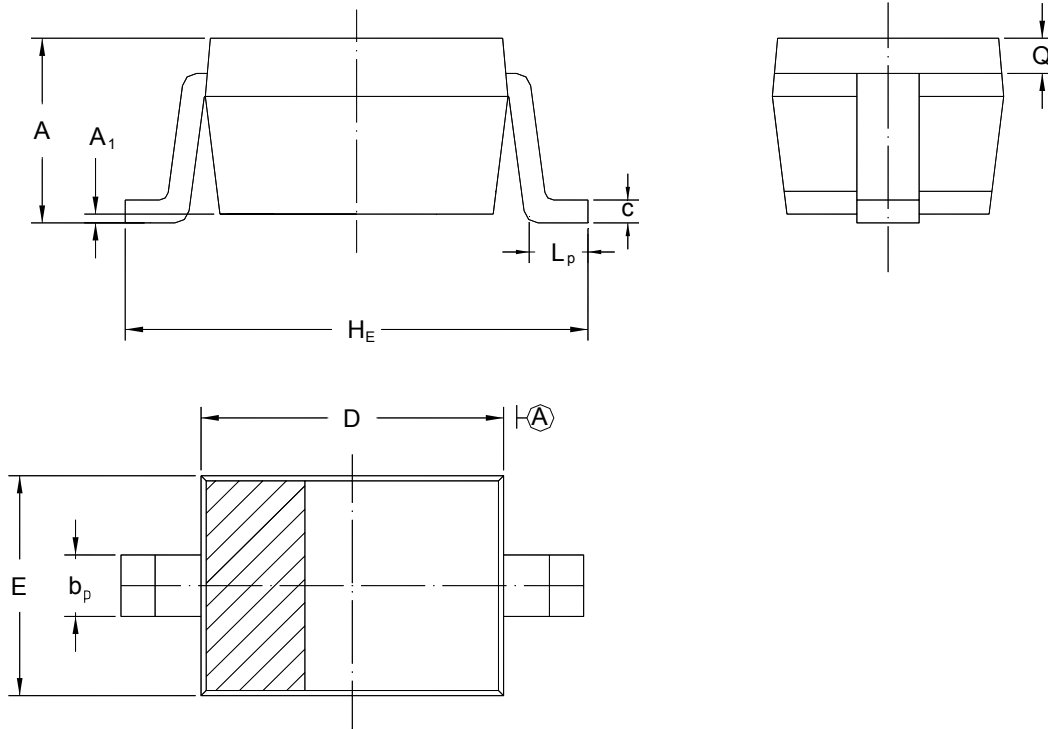
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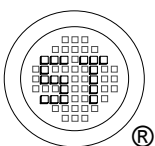
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



| UNIT | A | A ₁ | b _p | C | D | E | H _E | L _p | Q |
|------|--------------|----------------|----------------|--------------|--------------|--------------|----------------|----------------|--------------|
| mm | 1.10 0.80 | 0.1 0 | 0.40 0.25 | 0.15 0.00 | 1.80 1.60 | 1.35 1.15 | 2.80 2.30 | 0.50 0.10 | 0.15 REF. |



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