



SD13WSTH

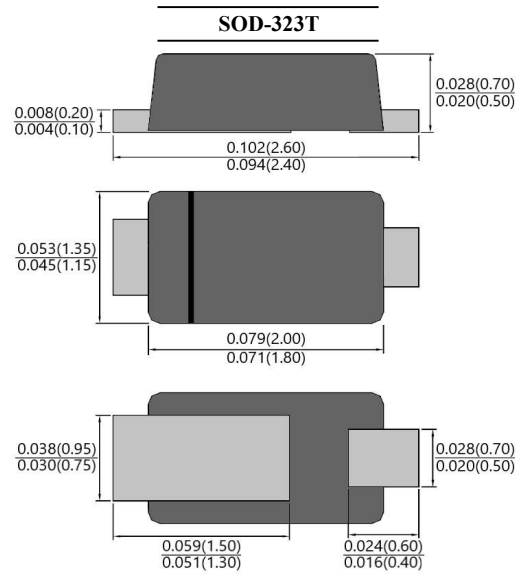
SCHOTTKY DIODE

FEATURES

- For use in low voltage
- Suffix "H" indicates Halogen-free parts, ex. SD13WSTH

MECHANICAL DATA

Case : SOD-323T
 Epoxy : UL 94V-O rate flame retardant
 Polarity : Indicated by cathode band
 Mounting position : Any



Dimensions in inch and (millimeter)

Maximum Ratings@ $T_A = 25\text{ }^\circ\text{C}$

| Parameter | Symbol | Value | Unit |
|--|-----------|-------------|------------------|
| Reverse Voltage | V_R | 30 | V |
| Forward Current | I_F | 1 | A |
| Peak Forward Surge Current ($t_p=8.3\text{ ms}$) | I_{FSM} | 25 | A |
| Junction Temperature | T_J | -40 to +125 | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | -40 to +125 | $^\circ\text{C}$ |

Electrical Characteristics@ $T_A = 25\text{ }^\circ\text{C}$

| Parameter | Conditions | Symbol | Min. | Typ. | Max. | Unit |
|-------------------------|--------------------------------------|--------|------|------|------|---------------|
| Forward Voltage | $I_F=1\text{ A}$ | V_F | - | - | 0.47 | V |
| Reverse Leakage Current | $V_R=5\text{ V}$ | I_R | - | - | 40 | μA |
| | $V_R=30\text{ V}$ | | - | - | 200 | |
| Junction Capacitance | $V_R=10\text{ V}$, $f=1\text{ MHz}$ | C_J | - | 30 | - | pF |



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RATINGS AND CHARACTERISTIC CURVES

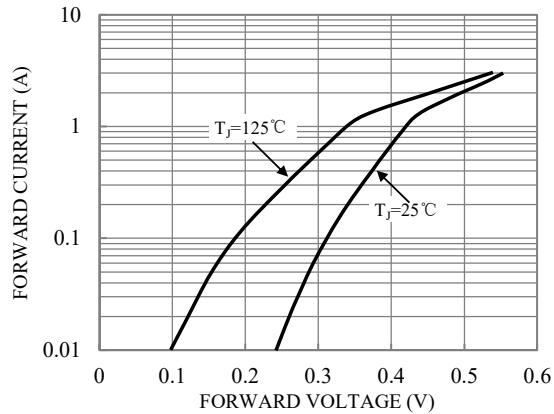


Fig. 1-TYPICAL FORWARD CHARACTERISTICS

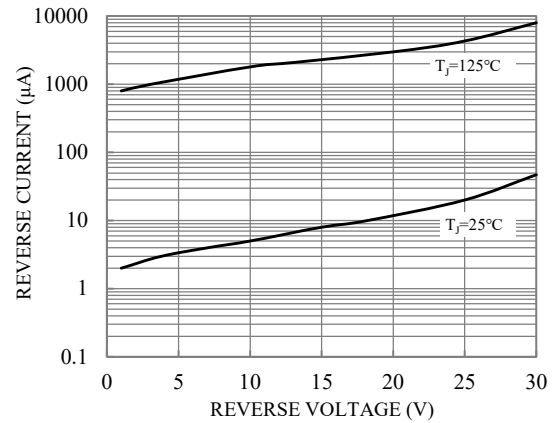


Fig. 2-TYPICAL REVERSE CHARACTERISTICS

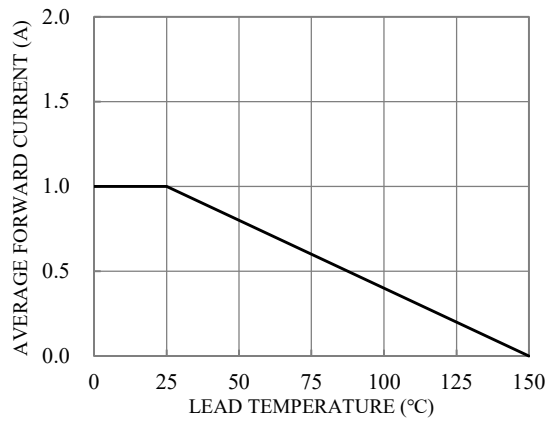


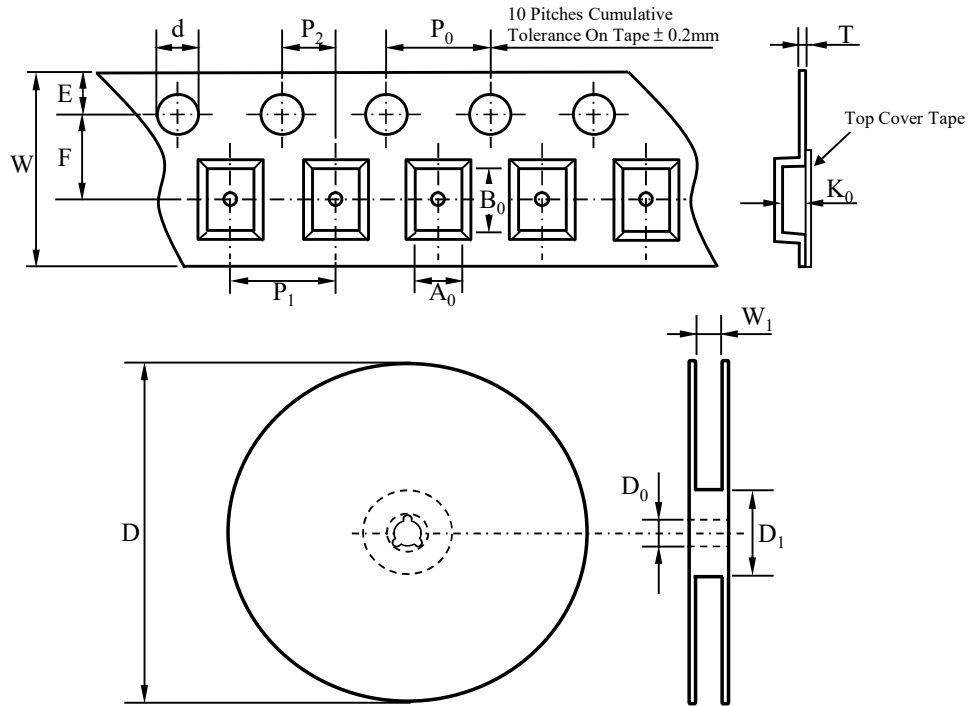
Fig. 3-FORWARD CURRENT DERATING CURVE



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TAPE & REEL SPECIFICATION



| Item | Symbol | SOD-323T |
|------------------------|----------------|---------------|
| Carrier width | A ₀ | * |
| Carrier length | B ₀ | |
| Carrier depth | K ₀ | |
| Sprocket hole | d | 1.60 ± 0.10 |
| Reel outside diameter | D | 178.00 ± 2.00 |
| Feed hole width | D ₀ | 13.00 ± 0.50 |
| Reel inner diameter | D ₁ | MIN. 50.00 |
| Sprocket hole position | E | 1.75 ± 0.10 |
| Punch hole position | F | 3.50 ± 0.10 |
| Sprocket hole pitch | P ₀ | 4.00 ± 0.10 |
| Punch hole pitch | P ₁ | 4.00 ± 0.10 |
| Embossment center | P ₂ | 2.00 ± 0.10 |
| Overall tape thickness | T | 0.20 ± 0.05 |
| Tape width | W | 8.00 ± 0.20 |
| Reel width | W ₁ | MAX. 14.50 |

Note *: A₀, B₀, and K₀ are determined by component size. The clearance between the components and the cavity must be within 0.05 mm min. to 0.5 mm max.

ORDER INFORMATION

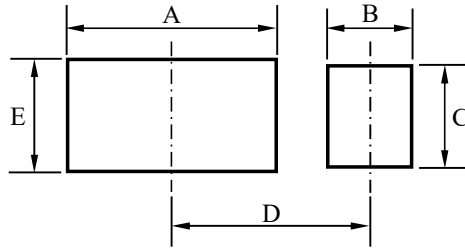
| Part Number | Marking Code | Reel Size | Quantity |
|-------------|--------------|-----------|----------|
| SD13WSTH | A3 | 7" | 3,000 |



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SUGGESTED SOLDER PAD LAYOUT



Unit :mm

| PACKAGE | A | B | C | D | E |
|----------|------|------|------|------|------|
| SOD-323T | 2.00 | 0.80 | 1.00 | 1.90 | 1.10 |