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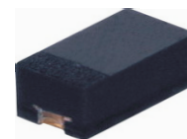
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)

## SMD Switching Diode



# CDSF355B

## RoHS Device

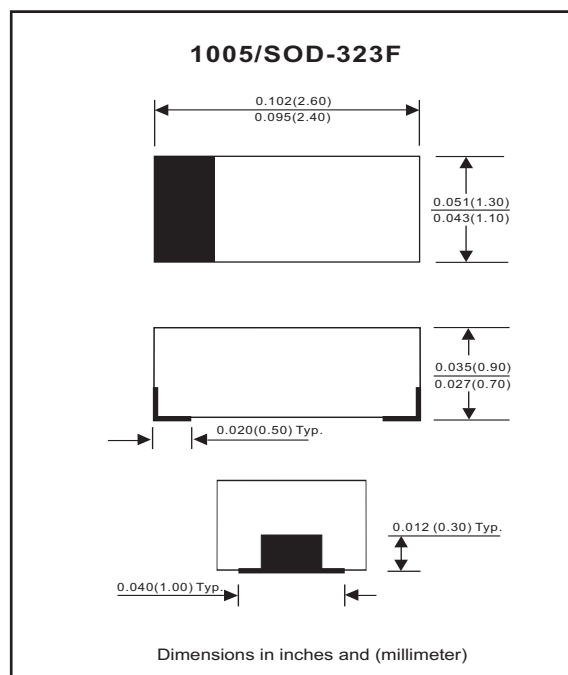


### Features

- High Speed.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current.
- High mounting capability, strong surge withstand, high reliability.

### Mechanical data

- Case: 1005/SOD-323F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking Code: Cathode band & S4
- Mounting position: Any.
- Weight: 0.006 gram (approx.).



### Maximum Rating ( at TA = 25 °C unless otherwise noted )

| Parameter                       | Conditions                                                              | Symbol | Min | Typ  | Max  | Unit |
|---------------------------------|-------------------------------------------------------------------------|--------|-----|------|------|------|
| Repetitive peak reverse voltage |                                                                         | VRRM   |     |      | 90   | V    |
| Reverse voltage                 |                                                                         | VR     |     |      | 80   | V    |
| Average forward current         |                                                                         | Io     |     |      | 100  | mA   |
| Forward current , surge peak    | 8.3 ms single half sine-wave superimposed on rate load ( JEDEC method ) | IFSM   |     | 1000 |      | mA   |
| Repetitive peak forward current |                                                                         | IFRM   |     |      | 225  | mA   |
| Power Dissipation               |                                                                         | PD     |     |      | 300  | mW   |
| Storage temperature             |                                                                         | TSTG   | -55 |      | +125 | °C   |
| Junction temperature            |                                                                         | Tj     |     |      | +125 | °C   |

### Electrical Characteristics ( at TA = 25 °C unless otherwise noted )

| Parameter                     | Conditions                           | Symbol | Min | Typ | Max | Unit |
|-------------------------------|--------------------------------------|--------|-----|-----|-----|------|
| Forward voltage               | IF = 100 mA DC                       | VF     |     |     | 1.0 | V    |
| Reverse current               | VR = 80 V                            | IR     |     |     | 0.1 | uA   |
| Capacitance between terminals | f = 1MHz, and 0.5VDC reverse voltage | CT     |     |     | 3   | pF   |
| Reverse recovery time         | VR = 6V, IF = 10 mA, RL =50 ohms     | Trr    |     |     | 4   | nS   |

# SMD Switching Diode

## RATING AND CHARACTERISTIC CURVES (CDSF355B )

Fig. 1 - Forward characteristics

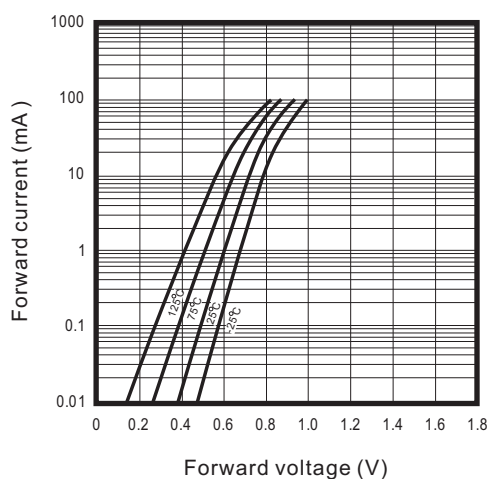


Fig. 2 - Reverse characteristics

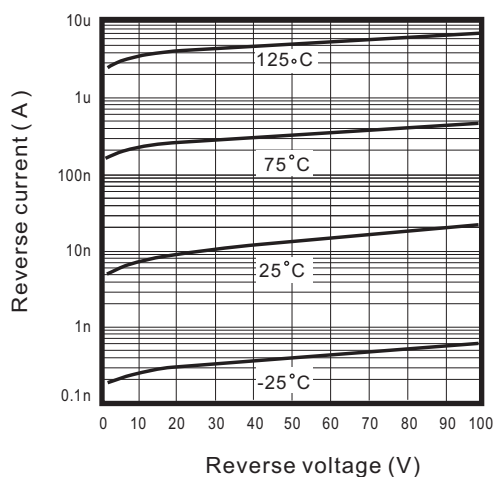


Fig. 3 - Capacitance between terminals characteristics

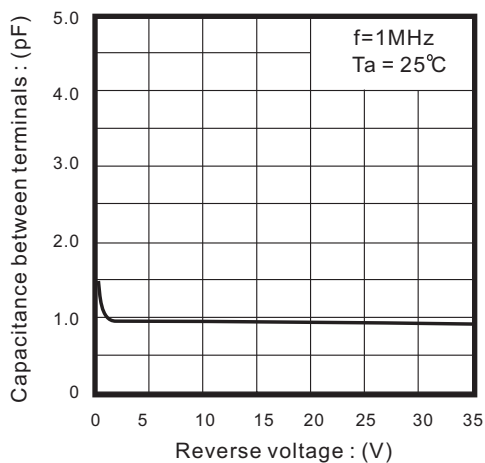
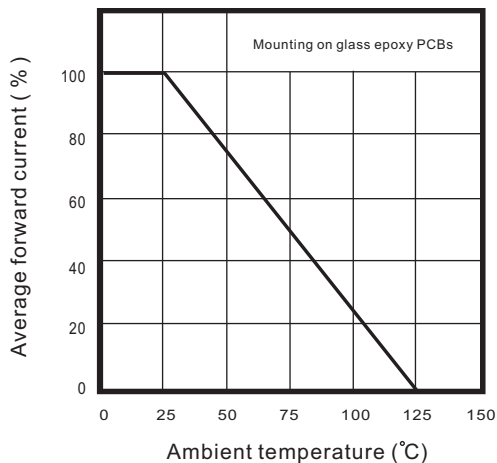
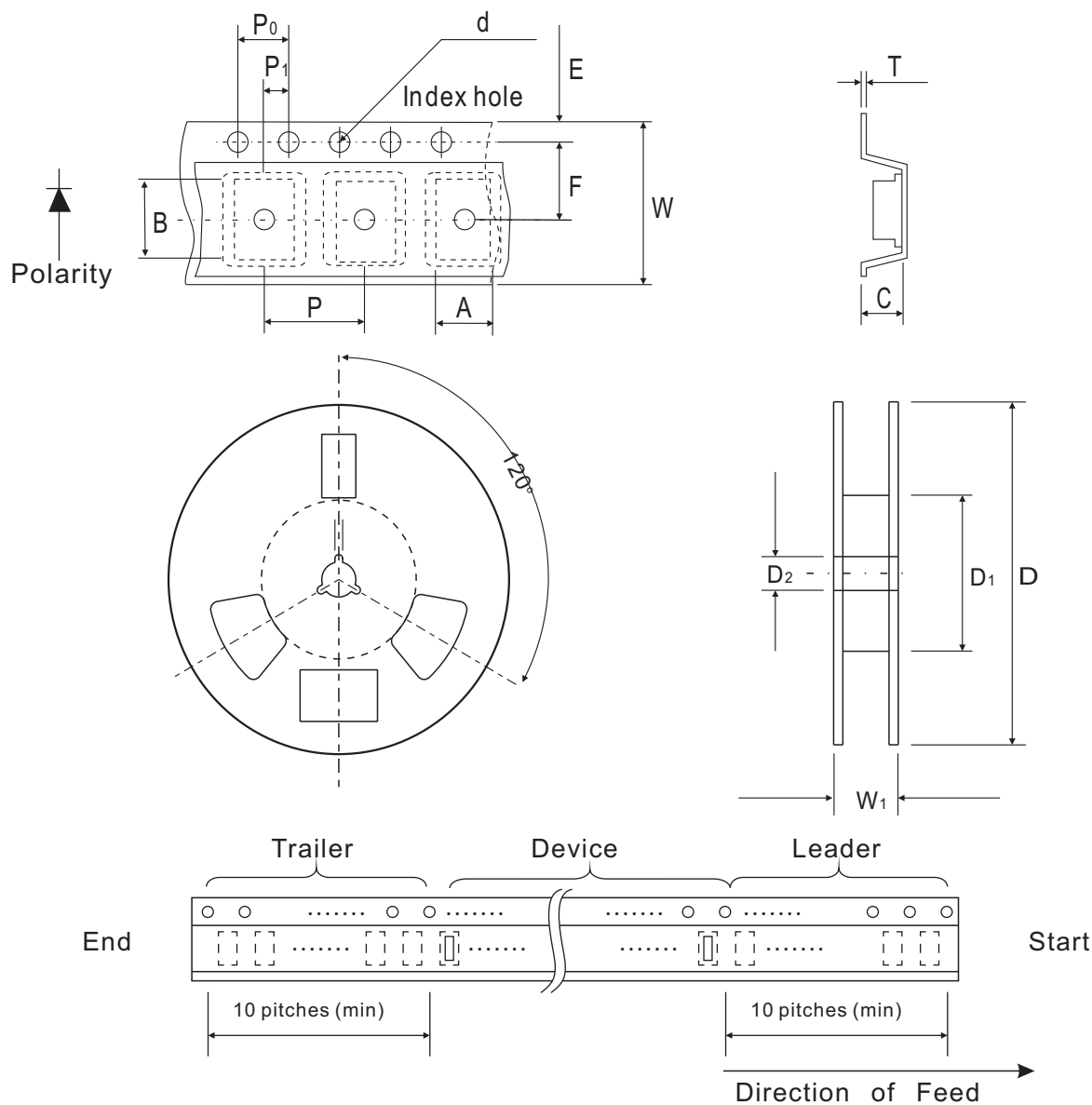


Fig. 4 - Current derating curve



## SMD Switching Diode

### Reel Taping Specification



| 1005<br>(SOD-323F) | SYMBOL | A             | B             | C             | d             | D            | D <sub>1</sub> | D <sub>2</sub> |
|--------------------|--------|---------------|---------------|---------------|---------------|--------------|----------------|----------------|
|                    | (mm)   | 1.55 ± 0.10   | 2.65 ± 0.10   | 1.05 ± 0.10   | 1.55 ± 0.05   | 178 ± 1      | 60.0 MIN.      | 13.0 ± 0.20    |
|                    | (inch) | 0.061 ± 0.004 | 0.104 ± 0.004 | 0.041 ± 0.004 | 0.061 ± 0.002 | 7.008 ± 0.04 | 2.362 MIN.     | 0.512 ± 0.008  |

| 1005<br>(SOD-323F) | SYMBOL | E             | F             | P             | P <sub>0</sub> | P <sub>1</sub> | T             | W             | W <sub>1</sub> |
|--------------------|--------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
|                    | (mm)   | 1.75 ± 0.10   | 3.50 ± 0.05   | 4.00 ± 0.10   | 4.00 ± 0.10    | 2.00 ± 0.05    | 0.23 ± 0.05   | 8.00 ± 0.20   | 13.5 MAX.      |
|                    | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004  | 0.079 ± 0.004  | 0.009 ± 0.002 | 0.315 ± 0.008 | 0.531 MAX.     |

## SMD Switching Diode

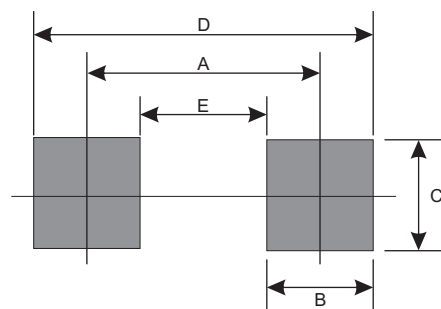
### Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| CDSF355B    | S4           |



### Suggested PAD Layout

| SIZE | 1005/SOD-323F |        |
|------|---------------|--------|
|      | (mm)          | (inch) |
| A    | 2.10          | 0.083  |
| B    | 1.20          | 0.047  |
| C    | 1.20          | 0.047  |
| D    | 3.30          | 0.130  |
| E    | 0.90          | 0.035  |



### Standard Package

| Case Type     | Qty per Reel | Reel Size |
|---------------|--------------|-----------|
|               | (Pcs)        | (inch)    |
| 1005/SOD-323F | 4000         | 7         |