

## CDSF355B-HF

### RoHS Device

### Halogen Free

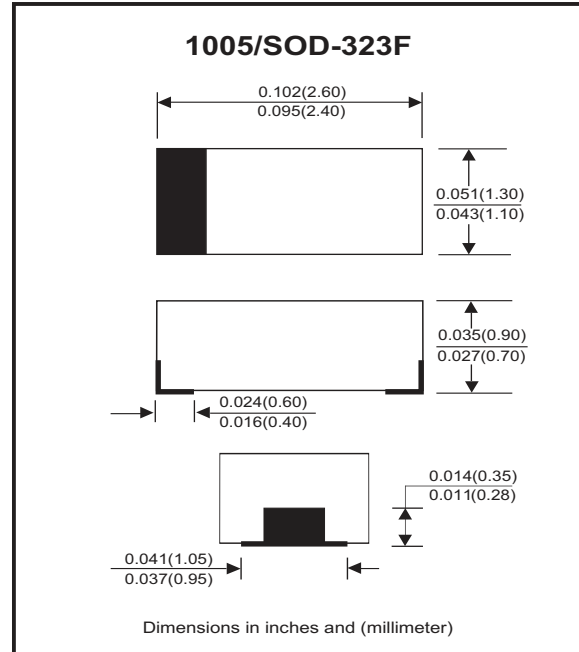


### Features

- 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.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Weight: 0.006 grams(approx.).



### Circuit diagram



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

| Parameter                       | Conditions  | Symbol           | Min | Typ  | Max  | Unit |
|---------------------------------|---|------------------|-----|------|------|------|
| Repetitive peak reverse voltage |   | V <sub>RRM</sub> |     |      | 90   | V    |
| Reverse voltage                 |   | V <sub>R</sub>   |     |      | 80   | V    |
| Average forward current         |   | I <sub>O</sub>   |     |      | 100  | mA   |
| Forward current, surge peak     | 8.3 ms single half sine-wave superimposed on rate load (JEDEC method) | I <sub>FSM</sub> |     | 1000 |      | mA   |
| Power dissipation               |   | P <sub>D</sub>   |     |      | 300  | mW   |
| Operating temperature range     |   | T <sub>J</sub>   | -40 |      | +125 | °C   |
| Storage temperature range       |   | T <sub>STG</sub> | -55 |      | +125 | °C   |

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

| Parameter                     | Conditions   | Symbol          | Min | Typ | Max | Unit |
|-------------------------------|--|-----------------|-----|-----|-----|------|
| Forward voltage               | I <sub>F</sub> = 100 mA DC   | V <sub>F</sub>  |     |     | 1.0 | V    |
| Reverse current               | V <sub>R</sub> = 80V   | I <sub>R</sub>  |     |     | 0.1 | μA   |
| Capacitance between terminals | f = 1MHz, and 0.5V DC reverse voltage                                | C <sub>T</sub>  |     |     | 3   | pF   |
| Reverse recovery time         | V <sub>R</sub> = 6V, I <sub>F</sub> = 10mA, R <sub>L</sub> = 50 ohms | T <sub>rr</sub> |     |     | 4   | nS   |

## RATING AND CHARACTERISTIC CURVES (CDSF355B-HF)

Fig.1 - Forward Characteristics

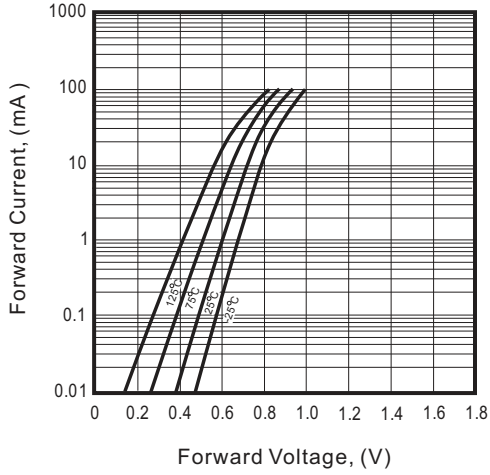


Fig.2 - Reverse Characteristics

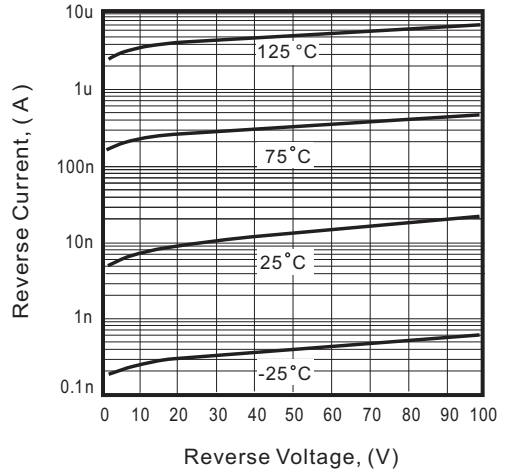


Fig.3 - Capacitance Between Terminals Characteristics

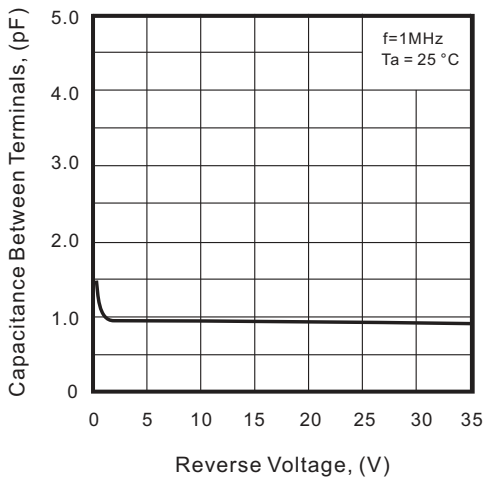
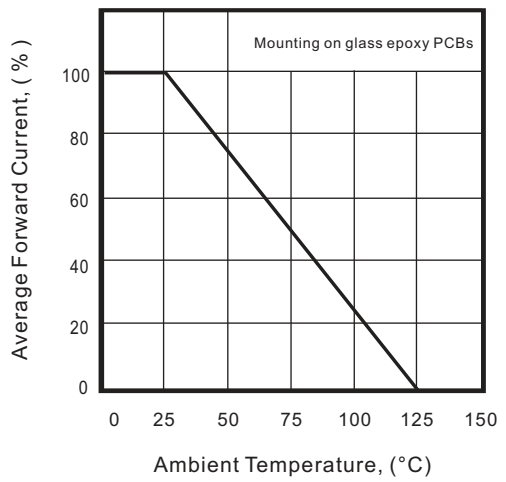
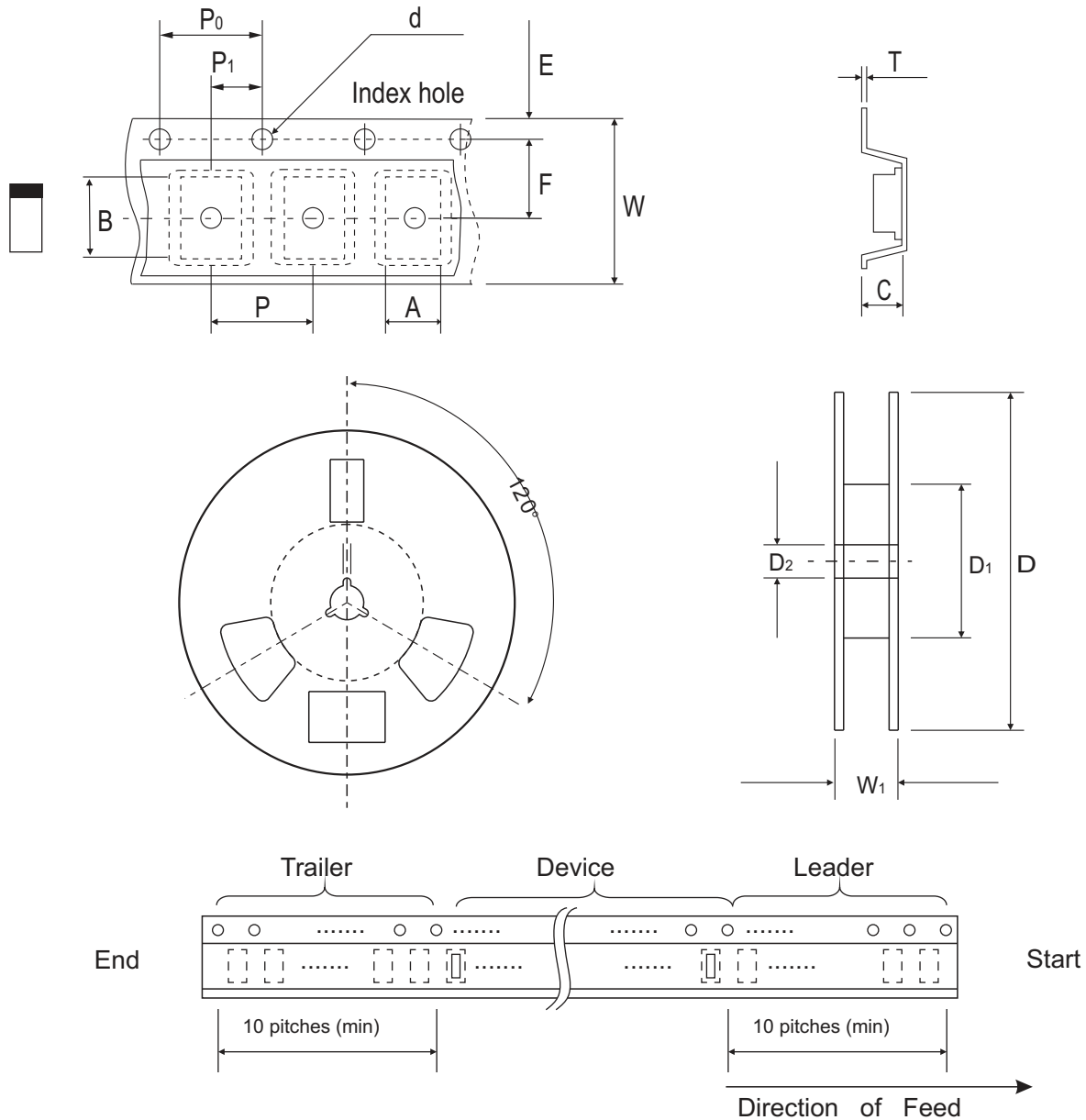


Fig.4 - Current Derating Curve



## 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 ± 1.0    | 60.0 MIN.      | 13.00 ± 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 ± 0.002  | 0.009 ± 0.002 | 0.315 ± 0.008 | 0.531 MAX.     |

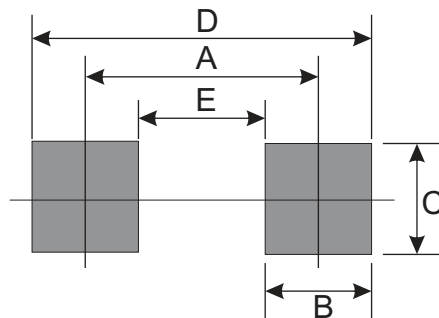
## Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| CDSF355B-HF | 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 Packaging

| Case Type     | Qty Per Reel | Reel Size |
|---------------|--------------|-----------|
|               | (Pcs)        | (inch)    |
| 1005/SOD-323F | 4,000        | 7         |