

## CDBU0230L-HF

$I_o = 200 \text{ mA}$   
 $V_R = 30 \text{ Volts}$   
 RoHS Device  
 Halogen Free

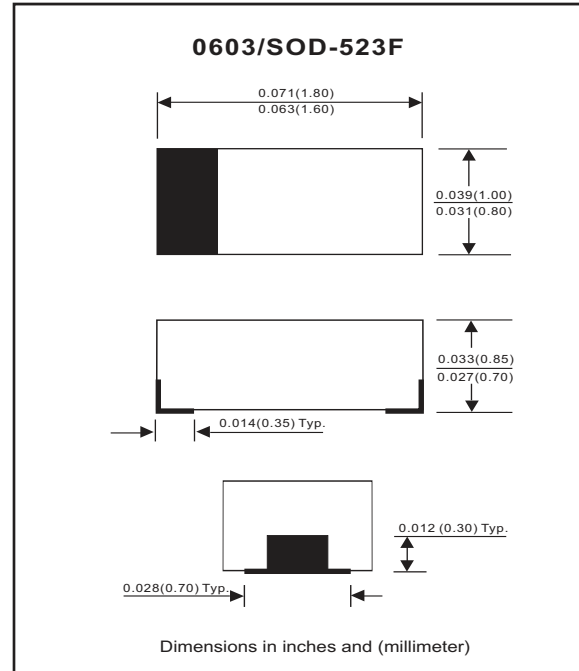


### Features

- Low forward voltage.
- Designed for mounting on small surface.
- Extremely thin / leadless package.
- Majority carrier conduction.

### Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking code: cathode band & BA
- Mounting position: Any
- Weight: 0.003 gram(approx.).



### Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter                       | Conditions  | Symbol    | Min | Typ | Max  | Unit             |
|---------------------------------|---|-----------|-----|-----|------|------------------|
| Repetitive peak reverse voltage |   | $V_{RRM}$ |     |     | 35   | V                |
| Reverse voltage                 |   | $V_R$     |     |     | 30   | V                |
| Average forward current         |   | $I_o$     |     |     | 200  | mA               |
| Forward current,surge peak      | 8.3ms single half sine-wave superimposed on rate load(JEDEC method) | $I_{FSM}$ |     |     | 1    | A                |
| Power Dissipation               |   | $P_D$     |     |     | 150  | mW               |
| Storage temperature             |   | $T_{STG}$ | -40 |     | +125 | $^\circ\text{C}$ |
| Junction temperature            |   | $T_j$     |     |     | +125 | $^\circ\text{C}$ |

### Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter       | Conditions             | Symbol | Min | Typ | Max | Unit          |
|-----------------|------------------------|--------|-----|-----|-----|---------------|
| Forward voltage | $I_F = 200 \text{ mA}$ | $V_F$  |     |     | 0.5 | V             |
| Reverse current | $V_R = 10 \text{ V}$   | $I_R$  |     |     | 30  | $\mu\text{A}$ |

## RATING AND CHARACTERISTIC CURVES (CDBU0230L-HF)

Fig. 2 - Reverse characteristics

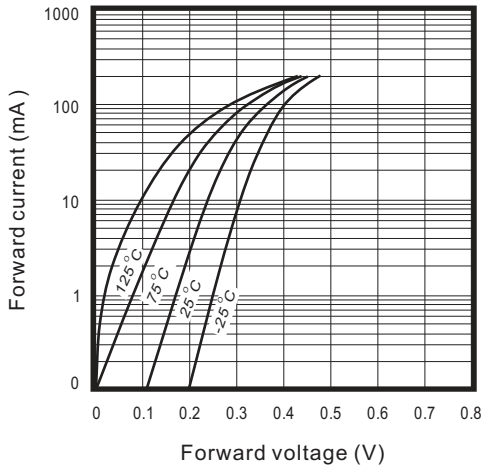
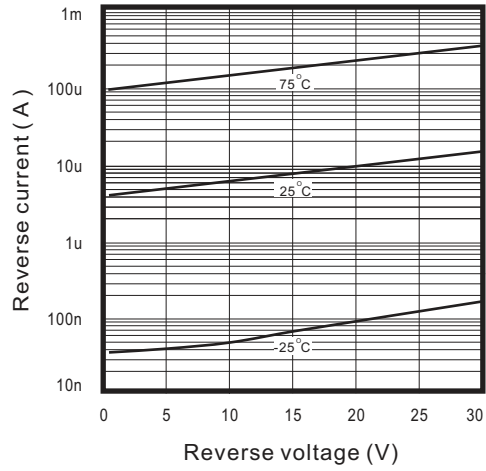


Fig.3 - Capacitance between terminals characteristics

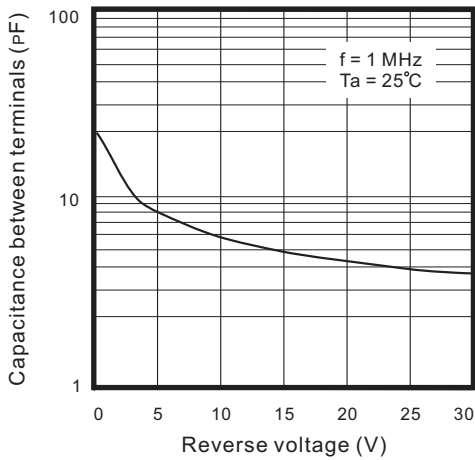


Fig.4 - Current derating curve

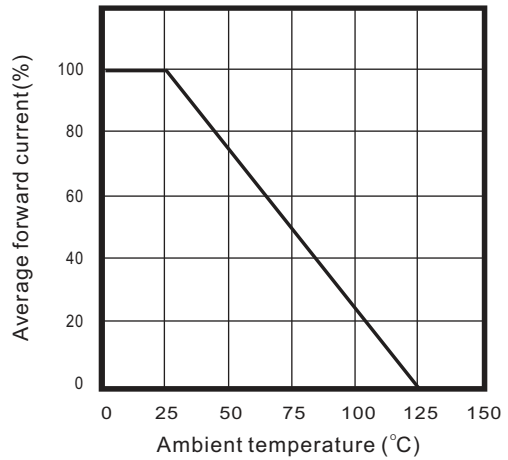


Fig. 5 - VF Dispersion map

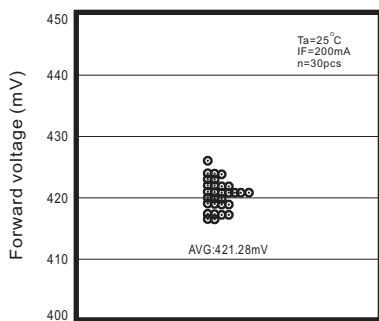


Fig. 6 - IR Dispersion map

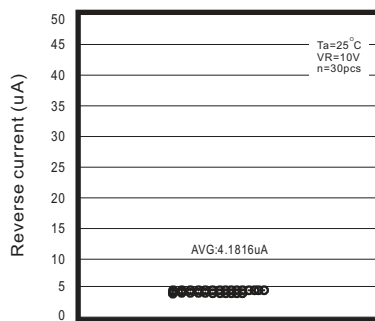
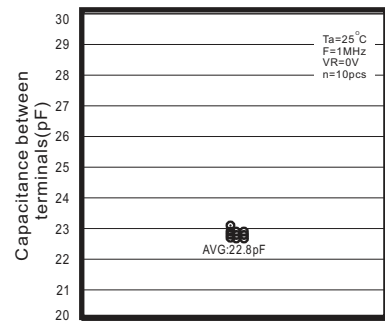
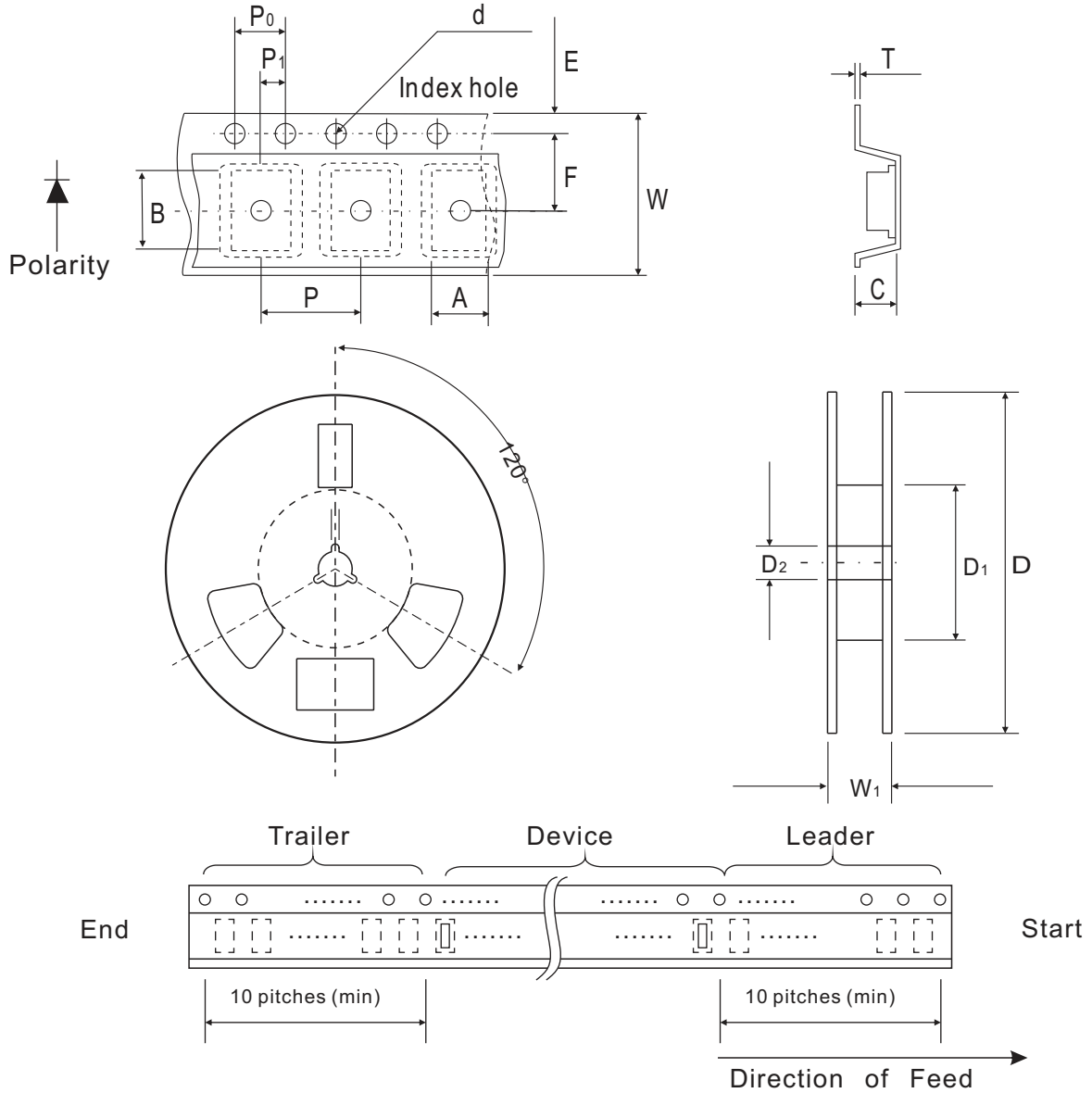


Fig. 7 - CT Dispersion map



## Reel Taping Specification



| 0603<br>(SOD-523F) | SYMBOL | A             | B             | C             | d             | D            | D <sub>1</sub> | D <sub>2</sub> |
|--------------------|--------|---------------|---------------|---------------|---------------|--------------|----------------|----------------|
|                    | (mm)   | 1.00 ± 0.10   | 1.85 ± 0.10   | 1.00 ± 0.10   | 1.55 ± 0.05   | 178 ± 1      | 60.0 MIN.      | 13.0 ± 0.20    |
|                    | (inch) | 0.039 ± 0.004 | 0.073 ± 0.004 | 0.039 ± 0.004 | 0.061 ± 0.002 | 7.008 ± 0.04 | 2.362 MIN.     | 0.512 ± 0.008  |

| 0603<br>(SOD-523F) | 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.     |

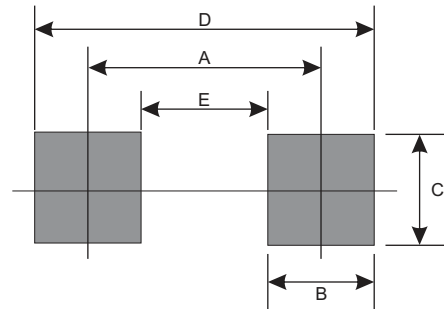
## Marking Code

| Park Number  | Marking Code |
|--------------|--------------|
| CDBU0230L-HF | BA           |



## Suggested PAD Layout

| SIZE | 0603/SOD-523F |        |
|------|---------------|--------|
|      | (mm)          | (inch) |
| A    | 1.70          | 0.067  |
| B    | 0.60          | 0.024  |
| C    | 0.80          | 0.031  |
| D    | 2.30          | 0.091  |
| E    | 1.10          | 0.043  |



## Standard Package

| Case Type     | Qty per Reel | Reel Size |
|---------------|--------------|-----------|
|               | (Pcs)        | (inch)    |
| 0603/SOD-523F | 4000         | 7         |