

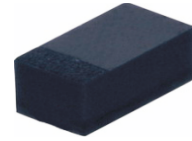
## CDBUR0230L-HF

$I_o = 200 \text{ mA}$

$V_R = 30 \text{ Volts}$

RoHS Device

Halogen Free



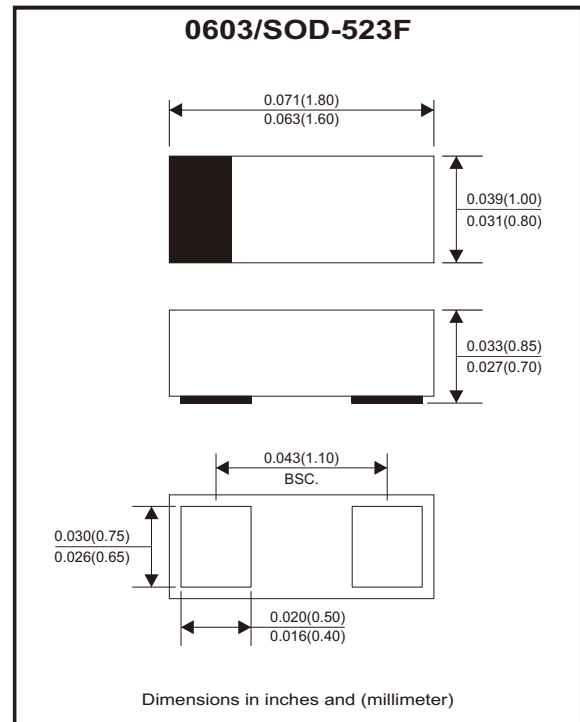
### Features

- 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.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Weight: 0.003 grams (approx.).

### Circuit Diagram



### 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                |
| 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 (CDBUR0230L-HF)

Fig.1 - Forward Characteristics

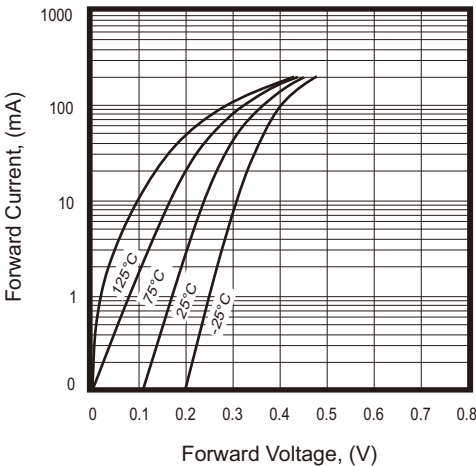


Fig.2 - Reverse Characteristics

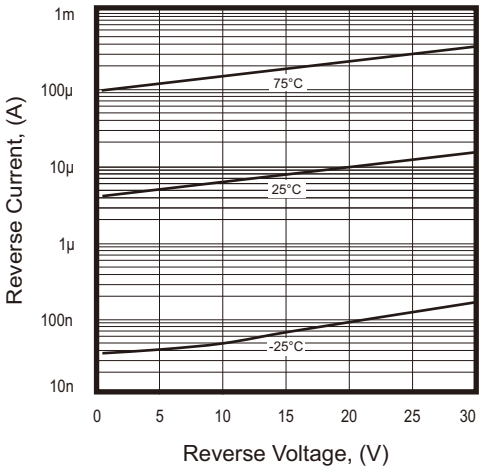


Fig.3 - Capacitance Between Terminals Characteristics

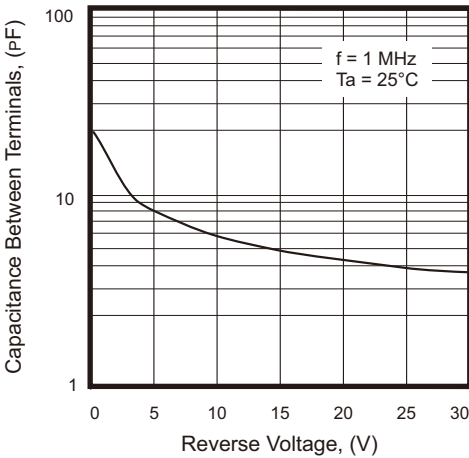


Fig.4 - Current Derating Curve

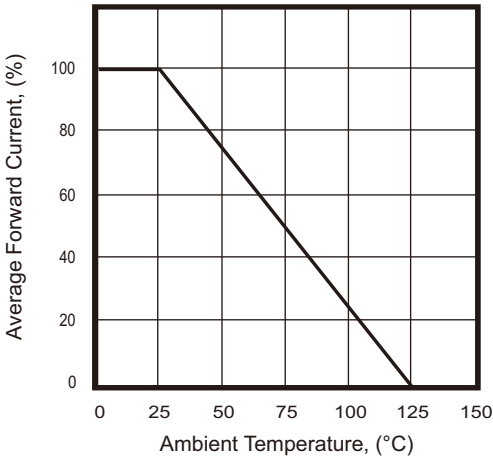


Fig.5 - VF Dispersion map

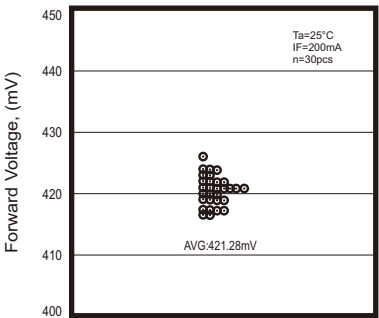


Fig.6 - IR Dispersion map

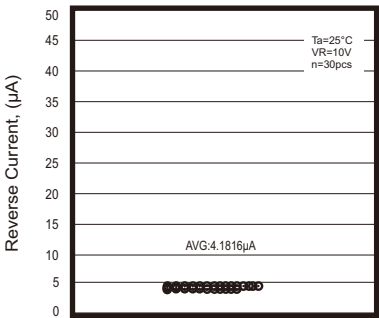
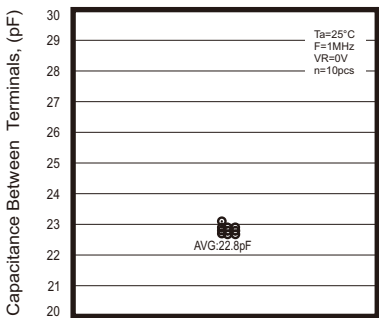
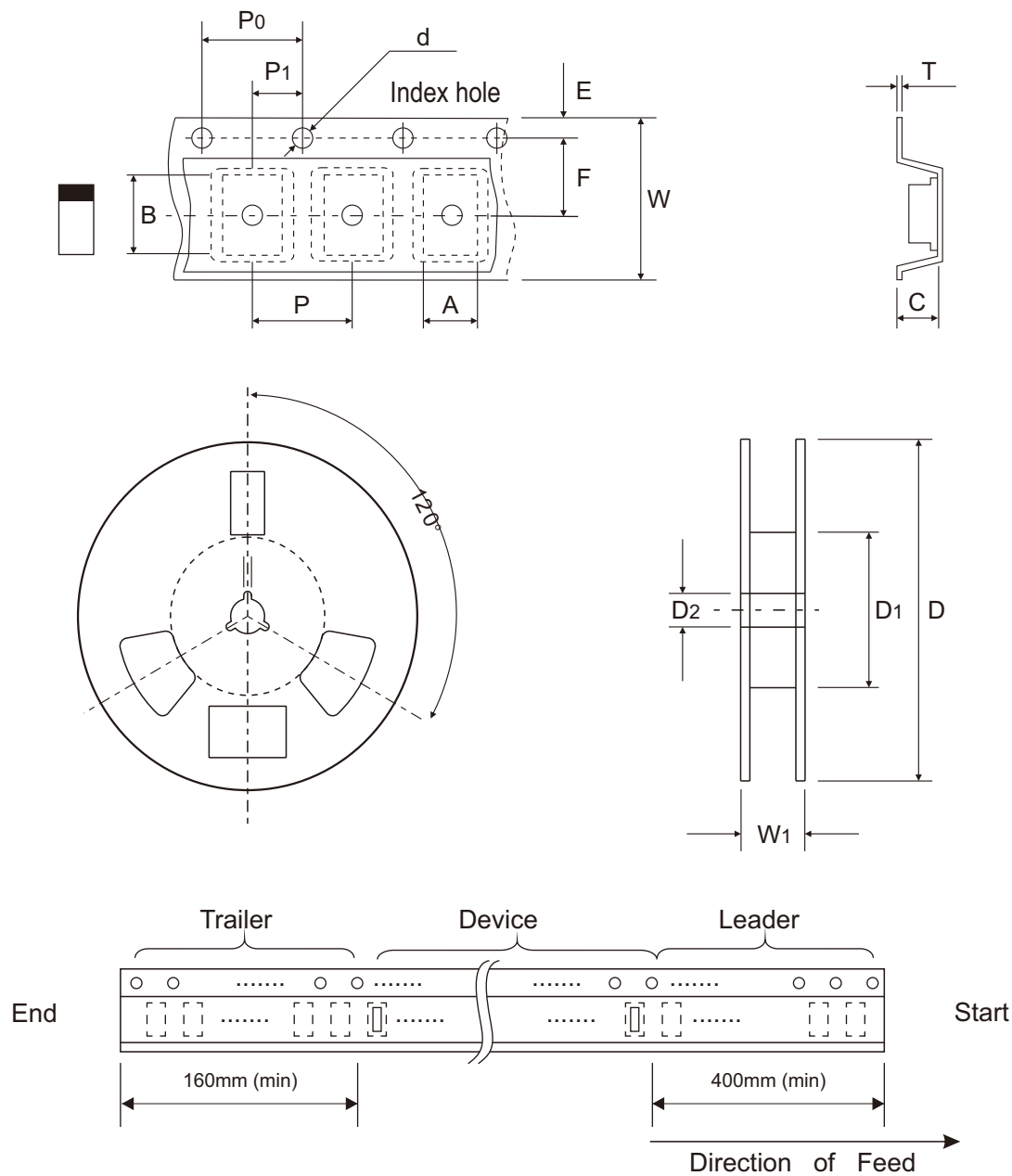


Fig.7 - CT Dispersion map



Reel Taping Specification



| 0603<br>(SOD-523F) | SYMBOL | A             | B             | C             | d                        | D             | D1            | D2            |
|--------------------|--------|---------------|---------------|---------------|--------------------------|---------------|---------------|---------------|
|                    | (mm)   | 1.16 ± 0.10   | 1.90 ± 0.10   | 0.95 ± 0.10   | 1.50 + 0.10<br>- 0.00    | 178.00 ± 1.00 | 60.00 ± 0.50  | 13.50 ± 0.20  |
|                    | (inch) | 0.046 ± 0.004 | 0.075 ± 0.004 | 0.037 ± 0.004 | 0.059 + 0.004<br>- 0.000 | 7.008 ± 0.039 | 2.362 ± 0.020 | 0.531 ± 0.008 |

| 0603<br>(SOD-523F) | SYMBOL | E             | F             | P             | P0            | P1            | T             | W             | W1                       |
|--------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|
|                    | (mm)   | 1.75 ± 0.10   | 3.50 ± 0.05   | 4.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.05   | 0.22 ± 0.03   | 8.00 ± 0.20   | 12.00 + 0.50<br>- 0.00   |
|                    | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.009 ± 0.001 | 0.315 ± 0.008 | 0.472 + 0.020<br>- 0.000 |

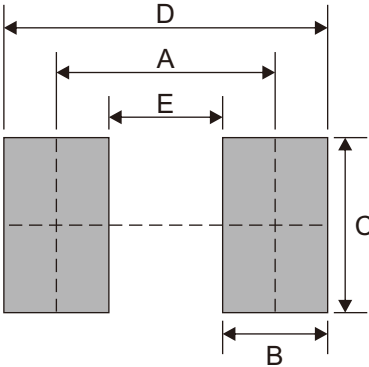
Marking Code

| Park Number   | Marking Code |
|---------------|--------------|
| CDBUR0230L-HF | BA           |



Suggested P.C.B. PAD Layout

| SIZE | 0603/SOD-523F |        |
|------|---------------|--------|
|      | (mm)          | (inch) |
| A    | 1.25          | 0.049  |
| B    | 0.60          | 0.024  |
| C    | 1.00          | 0.039  |
| D    | 1.85          | 0.073  |
| E    | 0.65          | 0.026  |



Standard Packaging

| Case Type     | REEL PACK  |                  |
|---------------|------------|------------------|
|               | REEL (pcs) | Reel Size (inch) |
| 0603/SOD-523F | 4,000      | 7                |