

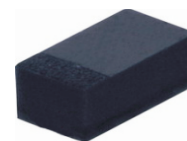
## CDBER0130R-HF

$I_o = 100 \text{ mA}$

$V_R = 30 \text{ Volts}$

RoHS Device

Halogen Free

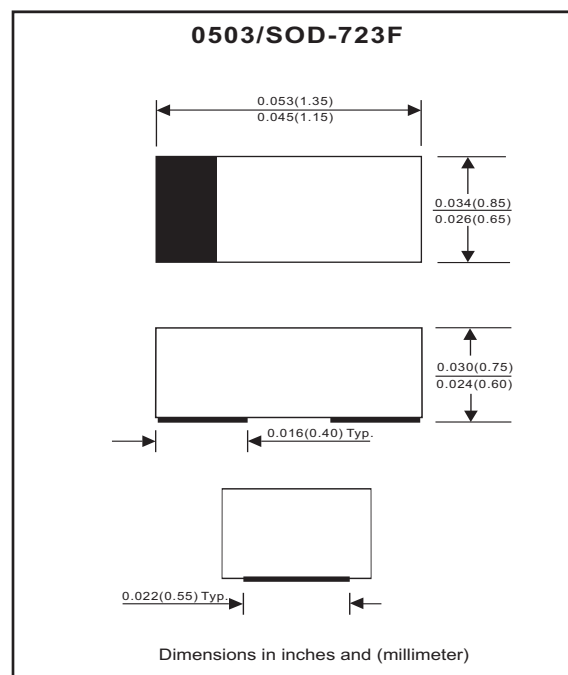


### Features

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

### Mechanical data

- Case: 0503/SOD-723F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking code: cathode band & BQ
- Mounting position: Any
- Weight: 0.002 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         |                                                                     | $I_o$     |     |     | 100  | 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 | $I_F = 10 \text{ mA}$ | $V_F$  |     |     | 0.45 | V             |
| Reverse current | $V_R = 10 \text{ V}$  | $I_R$  |     |     | 0.5  | $\mu\text{A}$ |

## RATING AND CHARACTERISTIC CURVES (CDBER0130R-HF)

Fig. 1 - Forward characteristics

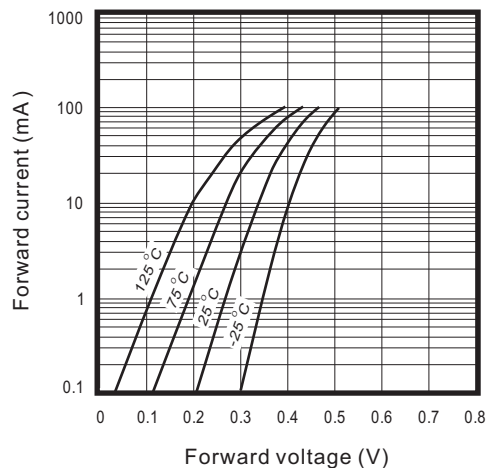


Fig. 2 - Reverse characteristics

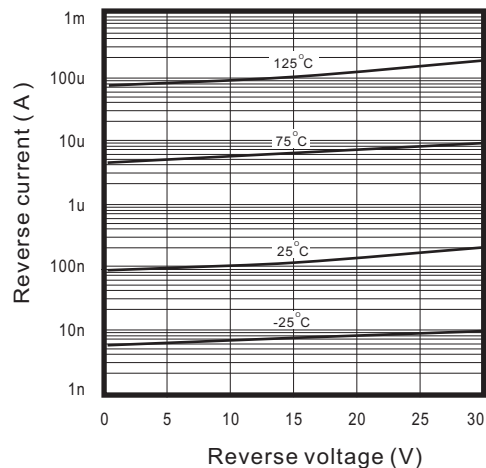


Fig. 3 - Capacitance between terminals characteristics

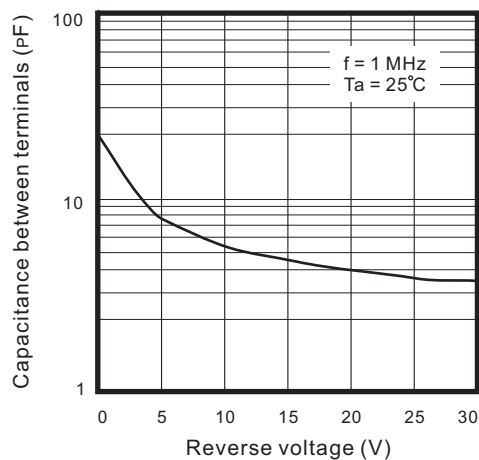


Fig. 4 - Current derating curve

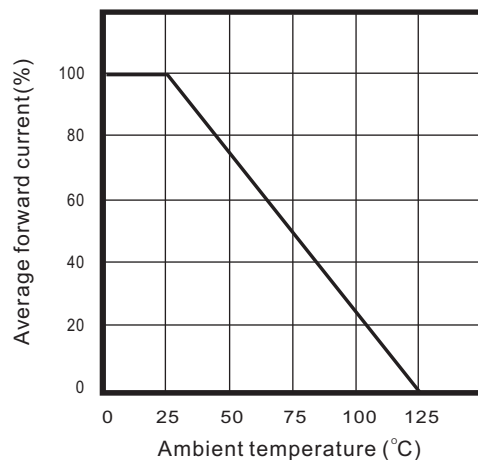


Fig. 5 - VF Dispersion map

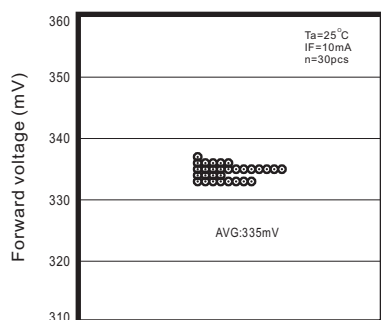


Fig. 6 - IR Dispersion map

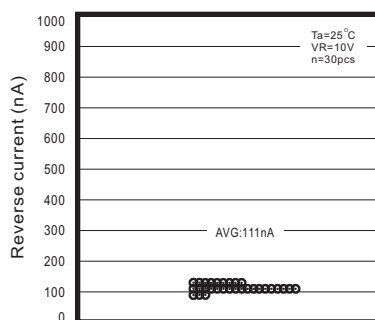
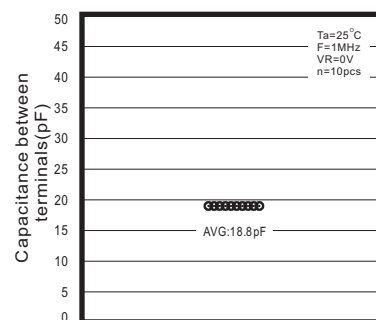
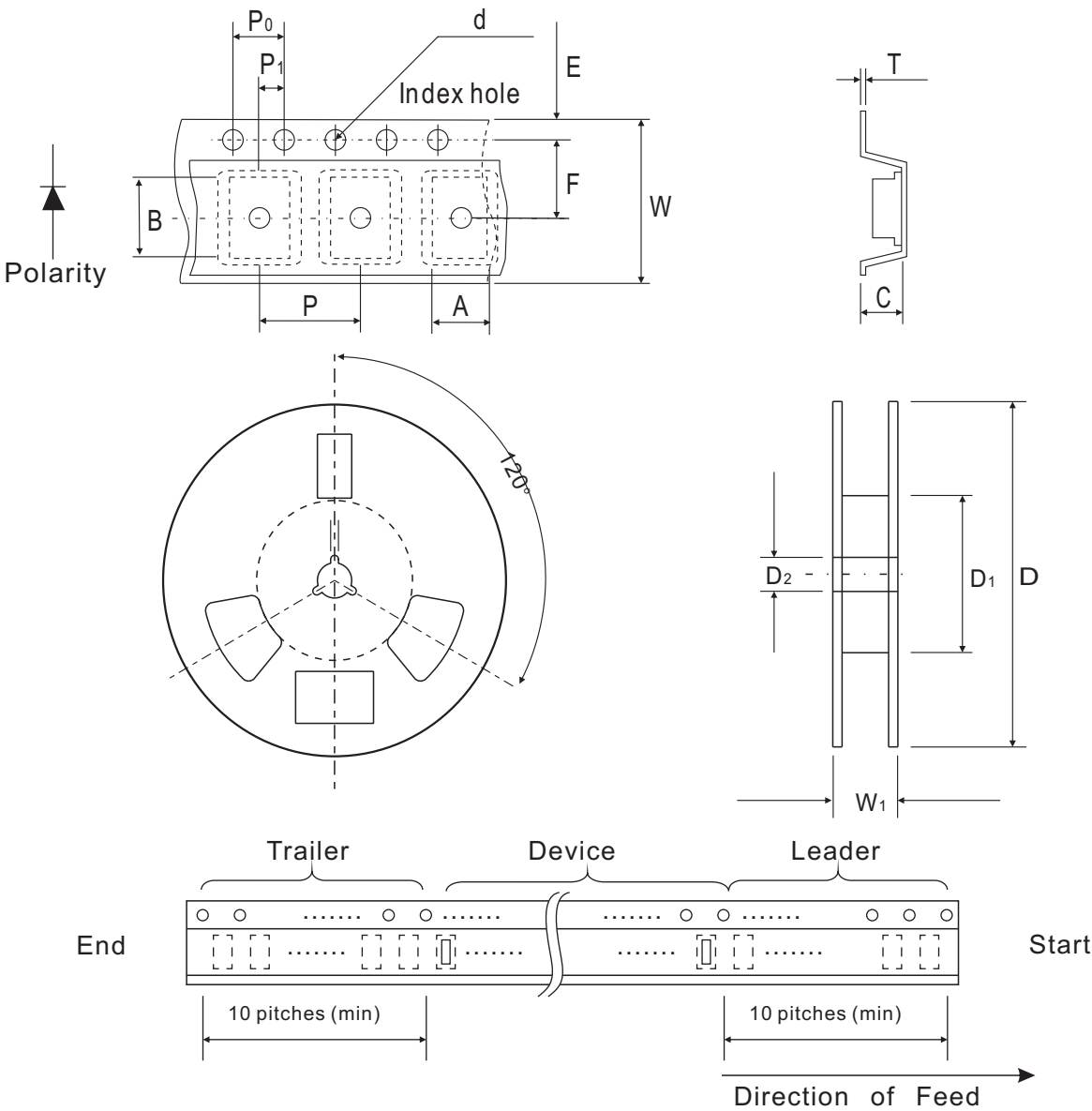


Fig. 7 - CT Dispersion map



Reel Taping Specification



|                    |        |               |               |               |               |              |                |                |
|--------------------|--------|---------------|---------------|---------------|---------------|--------------|----------------|----------------|
| 0503<br>(SOD-723F) | SYMBOL | A             | B             | C             | d             | D            | D <sub>1</sub> | D <sub>2</sub> |
|                    | (mm)   | 0.90 ± 0.10   | 1.46 ± 0.10   | 0.80 ± 0.10   | 1.55 ± 0.05   | 178 ± 1      | 60.0 MIN.      | 13.0 ± 0.20    |
|                    | (inch) | 0.035 ± 0.004 | 0.057 ± 0.004 | 0.031 ± 0.004 | 0.061 ± 0.002 | 7.008 ± 0.04 | 2.362 MIN.     | 0.512 ± 0.008  |

|                    |        |               |               |               |                |                |               |               |                |
|--------------------|--------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| 0503<br>(SOD-723F) | 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 ± 0.10    | 0.22 ± 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  | 0.008 ± 0.002 | 0.315 ± 0.008 | 0.531 MAX.     |

Marking Code

| Part Number  | Marking Code |
|--------------|--------------|
| CDBER130R-HF | BQ           |



Suggested PAD Layout

| SIZE | 0503/SOD-723F |        |
|------|---------------|--------|
|      | (mm)          | (inch) |
| A    | 0.85          | 0.033  |
| B    | 0.55          | 0.022  |
| C    | 0.85          | 0.033  |
| D    | 1.40          | 0.055  |
| E    | 0.30          | 0.012  |



Standard Package

| Case Type     | Qty per Reel | Reel Size |
|---------------|--------------|-----------|
|               | (Pcs)        | (inch)    |
| 0503/SOD-723F | 4000         | 7         |

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