

## ACDBV1100-HF

Forward current: 1.0 A

Reverse voltage: 100V

RoHS Device

Halogen Free

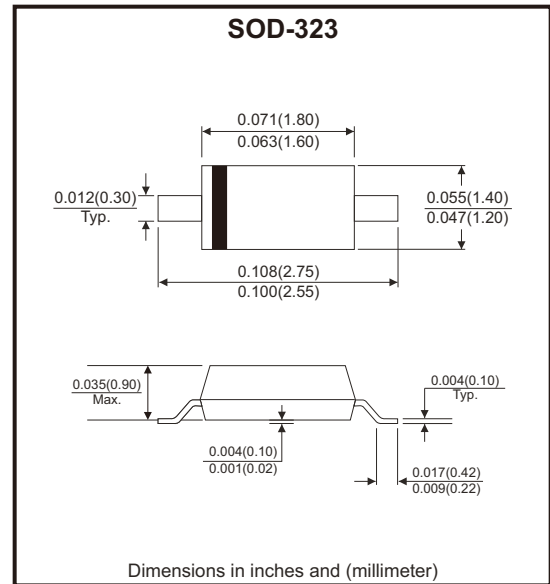


### Features

- Low leakage current.
- Easy pick and place.
- Plastic package has Underwriters Lab. Flammability Classification 94V-0
- Exceeds environmental standard MIL-S-19500/228.
- AEC-Q101 Qualified

### Mechanical Data

- Case: SOD-323, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode end.



### Circuit Diagram



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

| Parameter                                           | Symbol          | Value      | Unit |
|-----------------------------------------------------|-----------------|------------|------|
| Peak repetitive reverse voltage                     | $V_{RRM}$       | 100        | V    |
| Working peak reverse voltage                        | $V_{RWM}$       |            |      |
| RMS reverse voltage                                 | $V_{R(RMS)}$    | 70         | V    |
| Average rectified output current                    | $I_O$           | 1          | A    |
| Non-repetitive peak forward surge current @ t=8.3ms | $I_{FSM}$       | 9          | A    |
| Power dissipation                                   | $P_D$           | 250        | mW   |
| Thermal resistance from junction to ambient         | $R_{\theta JA}$ | 400        | °C/W |
| Operating junction temperature range                | $T_J$           | -55 ~ +150 | °C   |
| Storage temperature range                           | $T_{STG}$       | -55 ~ +150 | °C   |

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

| Parameter                | Conditions                        | Symbol    | Min. | Typ. | Max. | Unit    |
|--------------------------|-----------------------------------|-----------|------|------|------|---------|
| Reverse current          | $V_R = 100V$ , $T_J = 25^\circ C$ | $I_R$     |      | 0.2  | 50   | $\mu A$ |
| Forward voltage (Note 1) | $I_F = 0.1A$                      | $V_F$     |      | 0.52 |      | V       |
|                          | $I_F = 1A$                        |           |      |      | 0.82 |         |
| Total capacitance        | f = 1MHz, $V_R = 4V$              | $C_{tot}$ |      | 25   |      | pF      |

Notes: (1) Pulse test :  $t_p \leq 300\mu s$  ;  $\delta \leq 0.02$

Company reserves the right to improve product design , functions and reliability without notice.

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RATING AND CHARACTERISTIC CURVES (ACDBV1100-HF)

Fig.1 - Power Derating Curve

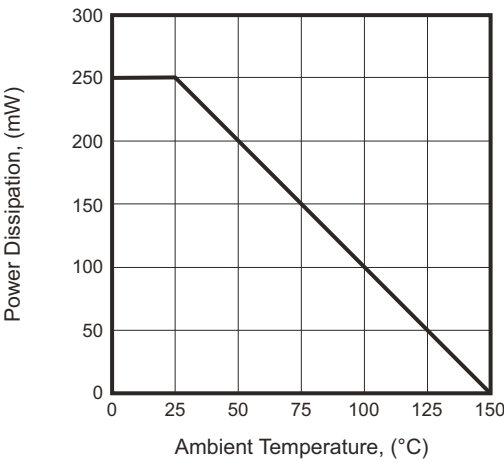


Fig.2 - Typical Forward Characteristics

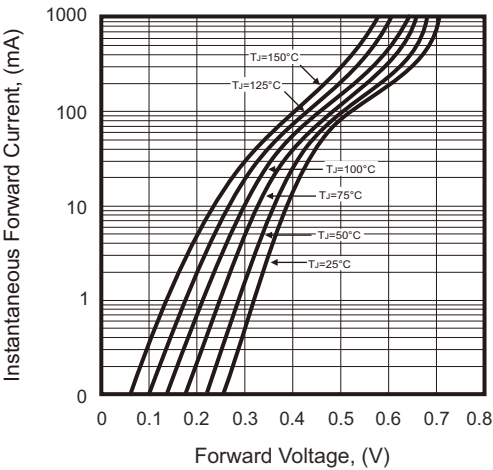


Fig.3 - Typical Reverse Characteristics

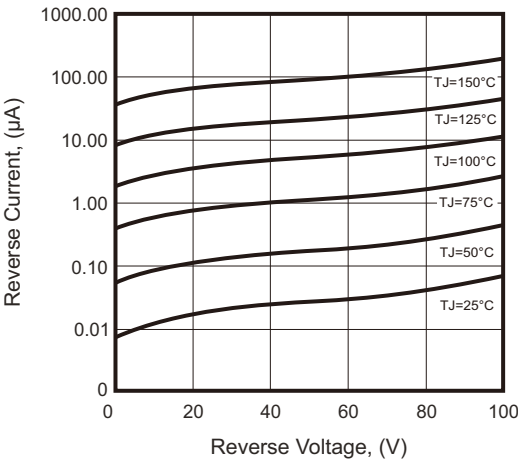
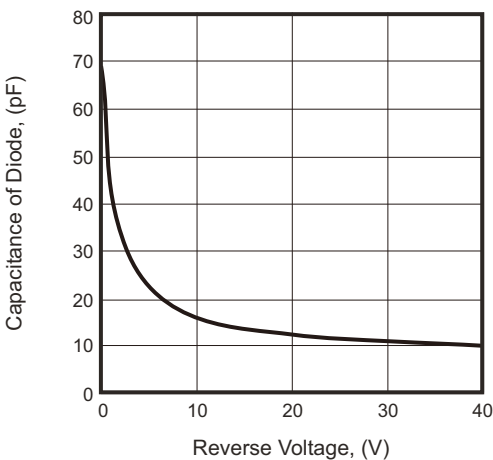
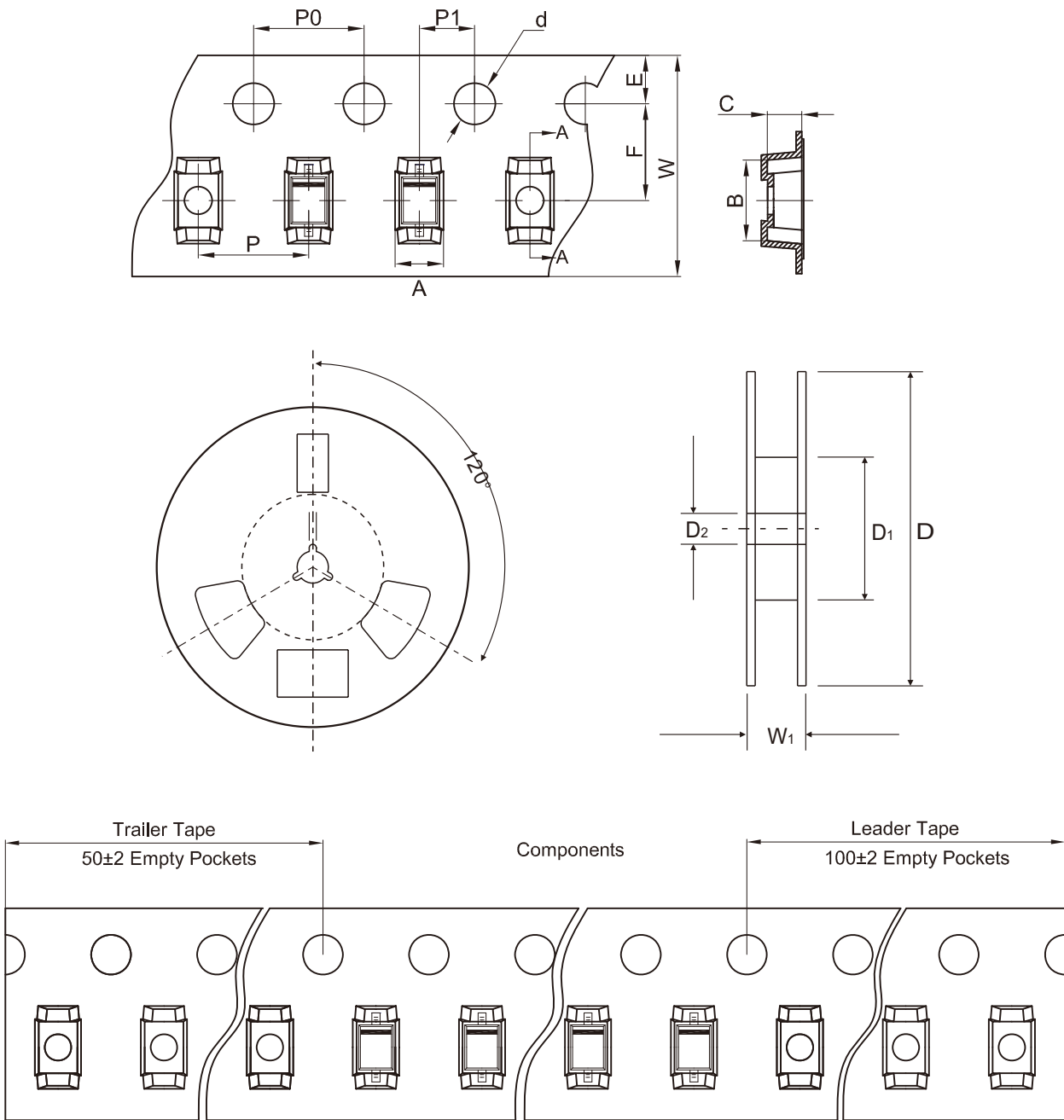


Fig.4 - Typical Capacitance of Diodes



Reel Taping Specification



|         |        |               |               |               |               |               |               |               |
|---------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| SOD-323 | SYMBOL | A             | B             | C             | d             | D             | D1            | D2            |
|         | (mm)   | 1.46 ± 0.05   | 3.30 ± 0.05   | 1.25 ± 0.05   | 1.50 ± 0.10   | 178.00 ± 1.00 | 54.40 ± 1.00  | 13.00 ± 0.50  |
|         | (inch) | 0.057 ± 0.002 | 0.130 ± 0.002 | 0.049 ± 0.002 | 0.059 ± 0.004 | 7.008 ± 0.039 | 2.142 ± 0.039 | 0.512 ± 0.020 |

|         |        |               |               |               |               |               |                          |               |
|---------|--------|---------------|---------------|---------------|---------------|---------------|--------------------------|---------------|
| SOD-323 | SYMBOL | E             | F             | P             | P0            | P1            | W                        | W1            |
|         | (mm)   | 1.75 ± 0.10   | 3.50 ± 0.05   | 4.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.05   | 8.00 + 0.30<br>- 0.10    | 12.30 ± 1.00  |
|         | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.158 ± 0.004 | 0.158 ± 0.004 | 0.079 ± 0.002 | 0.315 + 0.012<br>- 0.004 | 0.484 ± 0.039 |

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## Marking Code

| Part Number  | Marking Code |
|--------------|--------------|
| ACDBV1100-HF | 10           |

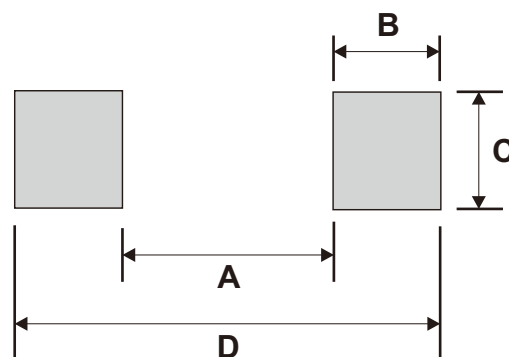


**XX** = Product type marking code

**|** = The marking bar indicates the cathode.

## Suggested PAD Layout

| SIZE | SOD-323 |        |
|------|---------|--------|
|      | (mm)    | (inch) |
| A    | 1.60    | 0.063  |
| B    | 0.63    | 0.024  |
| C    | 0.83    | 0.033  |
| D    | 2.86    | 0.112  |



Note:

1. The pad layout is for reference purposes only.

## Standard Packaging

| Case Type | REEL PACK       |                     |
|-----------|-----------------|---------------------|
|           | REEL<br>( pcs ) | Reel Size<br>(inch) |
| SOD-323   | 3,000           | 7                   |