

## CDSV3-217-G

**Reverse Voltage: 80 Volts**  
**Forward Current: 300 mA**  
**RoHS Device**



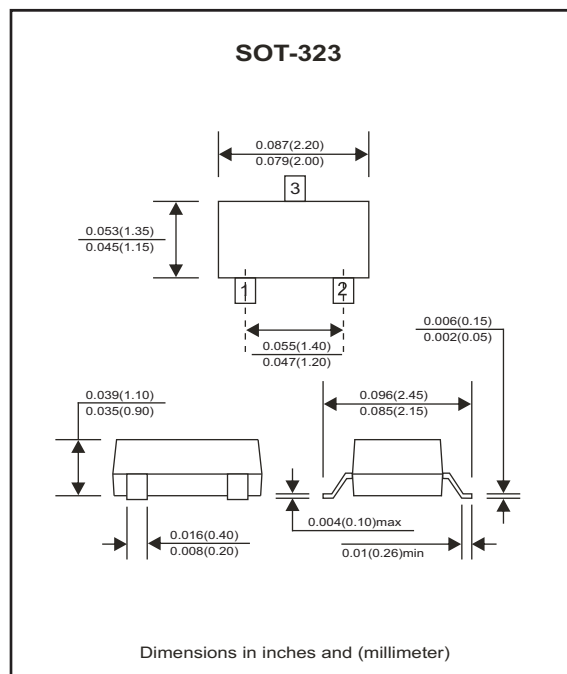
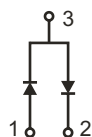
### Features

- Designed for mounting on small surface.
- High speed switching.
- High mounting capability, strong surge withstand, high reliability.

### Mechanical data

- Case: SOT-323, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 208.
- Weight: 0.006 gram(approx.).

CDSV3-217-G



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

| Parameter                   | Conditions | Symbol    | Min | Typ | Max  | Unit |
|-----------------------------|------------|-----------|-----|-----|------|------|
| Peak reverse voltage        |            | $V_{RM}$  |     |     | 80   | V    |
| Reverse voltage             |            | $V_R$     |     |     | 80   | V    |
| Forward current             |            | $I_{FM}$  |     |     | 300  | mA   |
| Average forward current     |            | $I_O$     |     |     | 100  | mA   |
| Forward current, surge peak | T = 10ms   | $I_{FSM}$ |     |     | 1    | A    |
| Power dissipation           |            | $P_D$     |     |     | 200  | mW   |
| Storage temperature         |            | $T_{STG}$ | -55 |     | +125 | °C   |
| Junction temperature        |            | $T_J$     |     |     | +125 | °C   |

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

| Parameter                 | Conditions                        | Symbol   | Min | Typ | Max | Unit |
|---------------------------|-----------------------------------|----------|-----|-----|-----|------|
| Forward voltage           | $I_F = 100\text{mA}$              | $V_F$    |     |     | 1.2 | V    |
| Reverse current           | $V_R = 70\text{V}$                | $I_R$    |     |     | 0.1 | uA   |
| Reverse breakdown voltage | $I_R = 100\text{uA}$              | $V_{BR}$ | 80  |     |     | V    |
| Junction Capacitance      | f=1MHz, and 0 VDC reverse voltage | $C_T$    |     |     | 2   | pF   |

## RATING AND CHARACTERISTIC CURVES (CDSV3-217-G)

Fig.1 - Forward characteristics

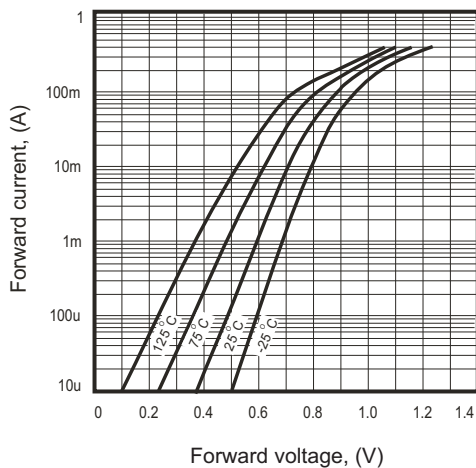


Fig.2 - Reverse characteristics

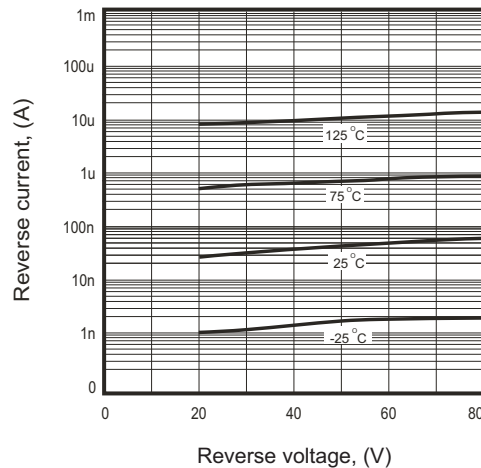


Fig.3 - Capacitance between terminals characteristics

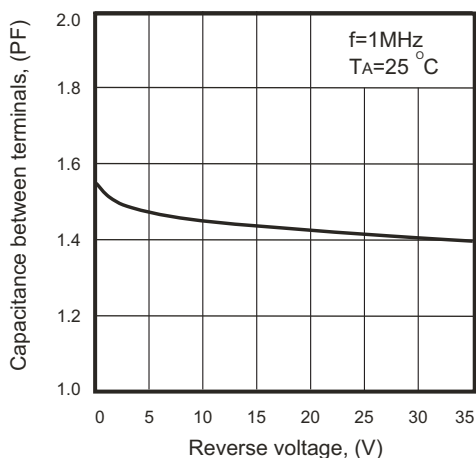
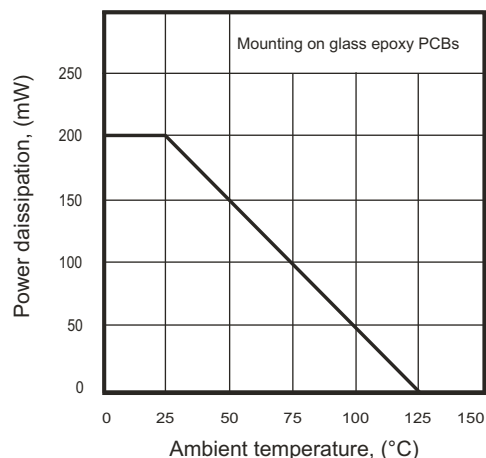
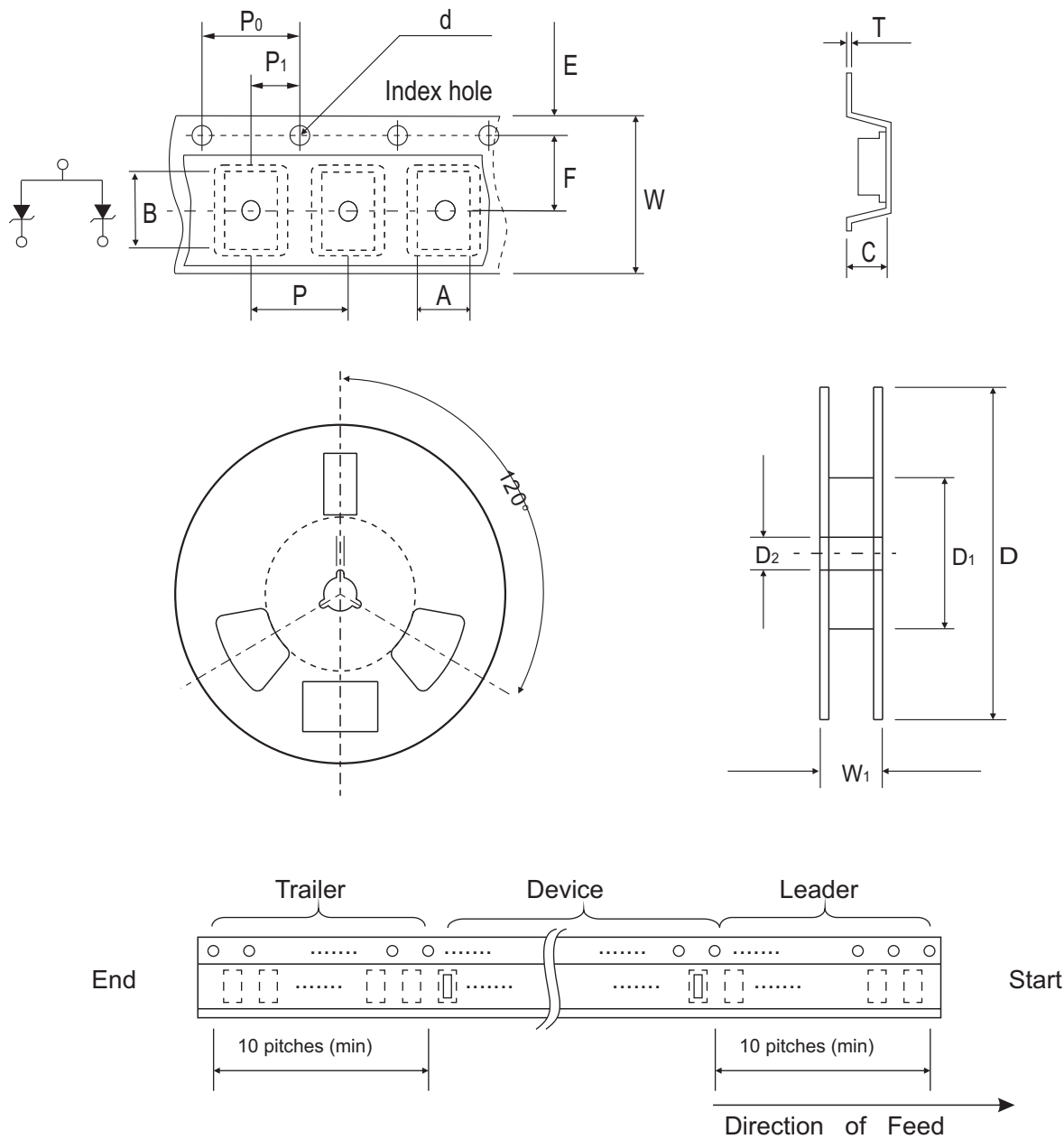


Fig.4 - Power derating curve



## Reel Taping Specification

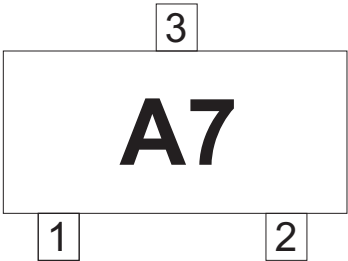


| SOT-323 | SYMBOL | A                 | B                 | C                 | d                 | D                 | D1         | D2                |
|---------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|------------|-------------------|
|         | (mm)   | $2.20 \pm 0.10$   | $2.40 \pm 0.10$   | $1.15 \pm 0.10$   | $1.55 \pm 0.10$   | $178 \pm 1$       | 50.0 MIN.  | $13.0 \pm 0.20$   |
|         | (inch) | $0.087 \pm 0.004$ | $0.094 \pm 0.004$ | $0.045 \pm 0.004$ | $0.061 \pm 0.004$ | $7.008 \pm 0.040$ | 1.969 MIN. | $0.512 \pm 0.008$ |

| SOT-323 | SYMBOL | E                 | F                 | P                 | P0                | P1                | W                 | W1         |
|---------|--------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------|
|         | (mm)   | $1.75 \pm 0.10$   | $3.50 \pm 0.05$   | $4.00 \pm 0.10$   | $4.00 \pm 0.10$   | $2.00 \pm 0.05$   | $8.00 \pm 0.30$   | 14.4 MAX.  |
|         | (inch) | $0.069 \pm 0.004$ | $0.138 \pm 0.002$ | $0.157 \pm 0.004$ | $0.157 \pm 0.004$ | $0.079 \pm 0.002$ | $0.315 \pm 0.012$ | 0.567 MAX. |

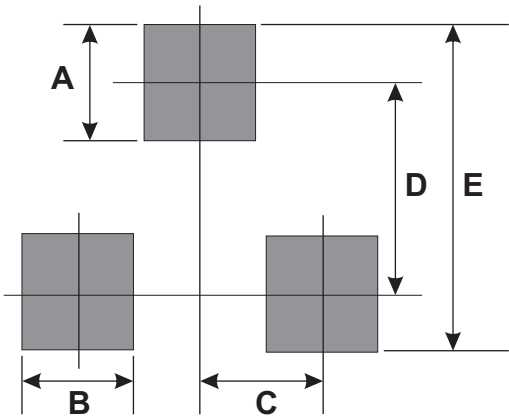
## Marking Code

| Park Number | Marking Code |
|-------------|--------------|
| CDSV3-217-G | A7           |



## Suggested PAD Layout

| SIZE | SOT-323 |        |
|------|---------|--------|
|      | (mm)    | (inch) |
| A    | 0.80    | 0.032  |
| B    | 0.80    | 0.032  |
| C    | 0.65    | 0.025  |
| D    | 1.94    | 0.076  |
| E    | 3.88    | 0.152  |



## Standard Packaging

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