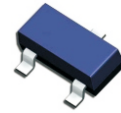


# CDST226-G

## RoHS Device



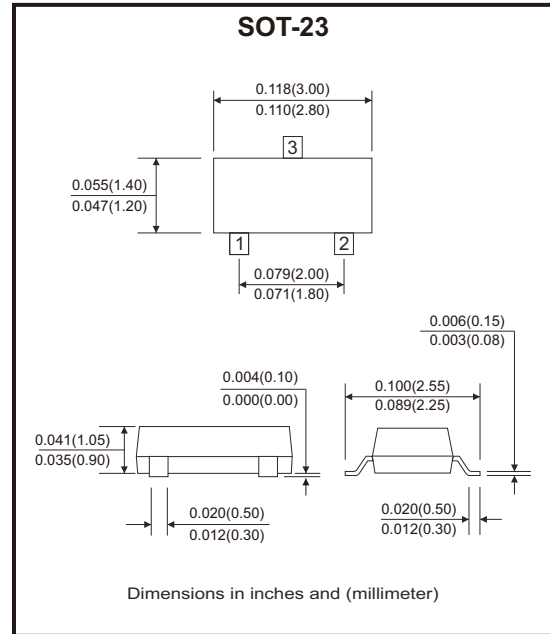
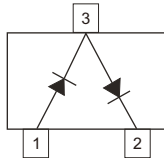
### Features

- Low forward voltage.
- Fast reverse recovery time.
- Small total capacitance.

### Mechanical data

- Case: SOT-23
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026.

### Circuit Diagram



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

| Parameter                                   | Symbol          | Limits     | Unit |
|---------------------------------------------|-----------------|------------|------|
| Non-Repetitive peak reverse voltage         | $V_{RM}$        | 85         | V    |
| Peak repetitive peak reverse voltage        | $V_{RRM}$       | 80         | V    |
| Working peak reverse voltage                | $V_{RWM}$       |            |      |
| DC blocking voltage                         | $V_R$           |            |      |
| Forward continuous current                  | $I_{FM}$        | 300        | mA   |
| Average rectified output current            | $I_o$           | 100        | mA   |
| Peak forward surge current @10mS            | $I_{FSM}$       | 2          | A    |
| Power dissipation                           | $P_D$           | 150        | mW   |
| Thermal resistance from junction to ambient | $R_{\theta JA}$ | 833        | °C/W |
| Junction temperature                        | $T_J$           | 150        | °C   |
| Storage temperature range                   | $T_{STG}$       | -55 ~ +150 | °C   |

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

| Parameter                 | Symbol     | Test Conditions  | Min | Max | Unit    |
|---------------------------|------------|------------------|-----|-----|---------|
| Reverse breakdown voltage | $V_{(BR)}$ | $I_R=100\mu A$   | 80  |     | V       |
| Reverse leakage current   | $I_R$      | $V_R=80V$        |     | 0.5 | $\mu A$ |
| Forward voltage           | $V_F$      | $I_F=100mA$      |     | 1.2 | V       |
| Diode capacitance         | $C_D$      | $V_R=0V, f=1MHz$ |     | 3   | pF      |
| Reverse recovery time     | $t_{rr}$   | $I_F=10mA$       |     | 4   | nS      |

Rating and Characteristic Curves (CDST226-G)

Fig.1 - Forward Characteristics

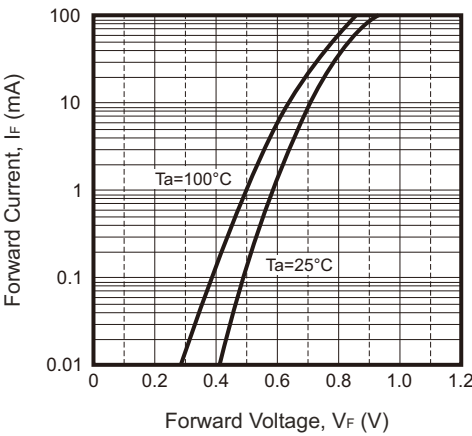


Fig.2 - Reverse Characteristics

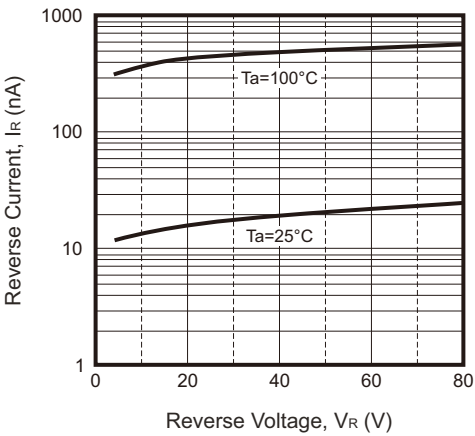


Fig.3 - Capacitance Characteristics

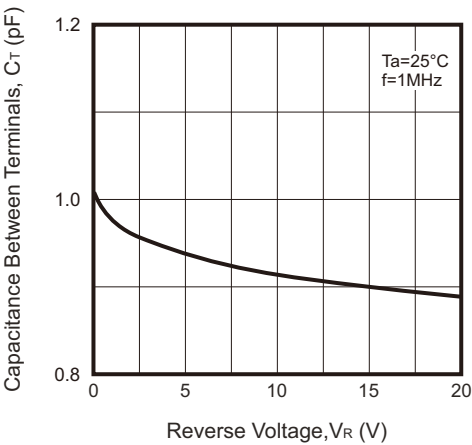
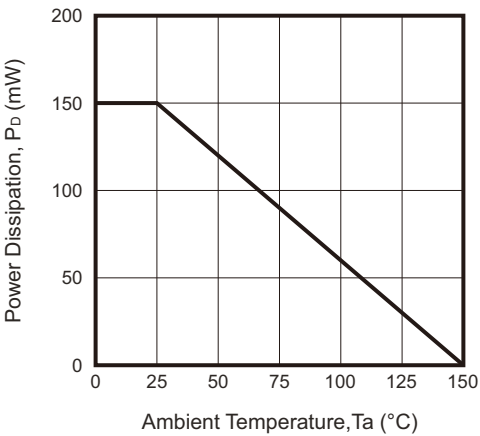
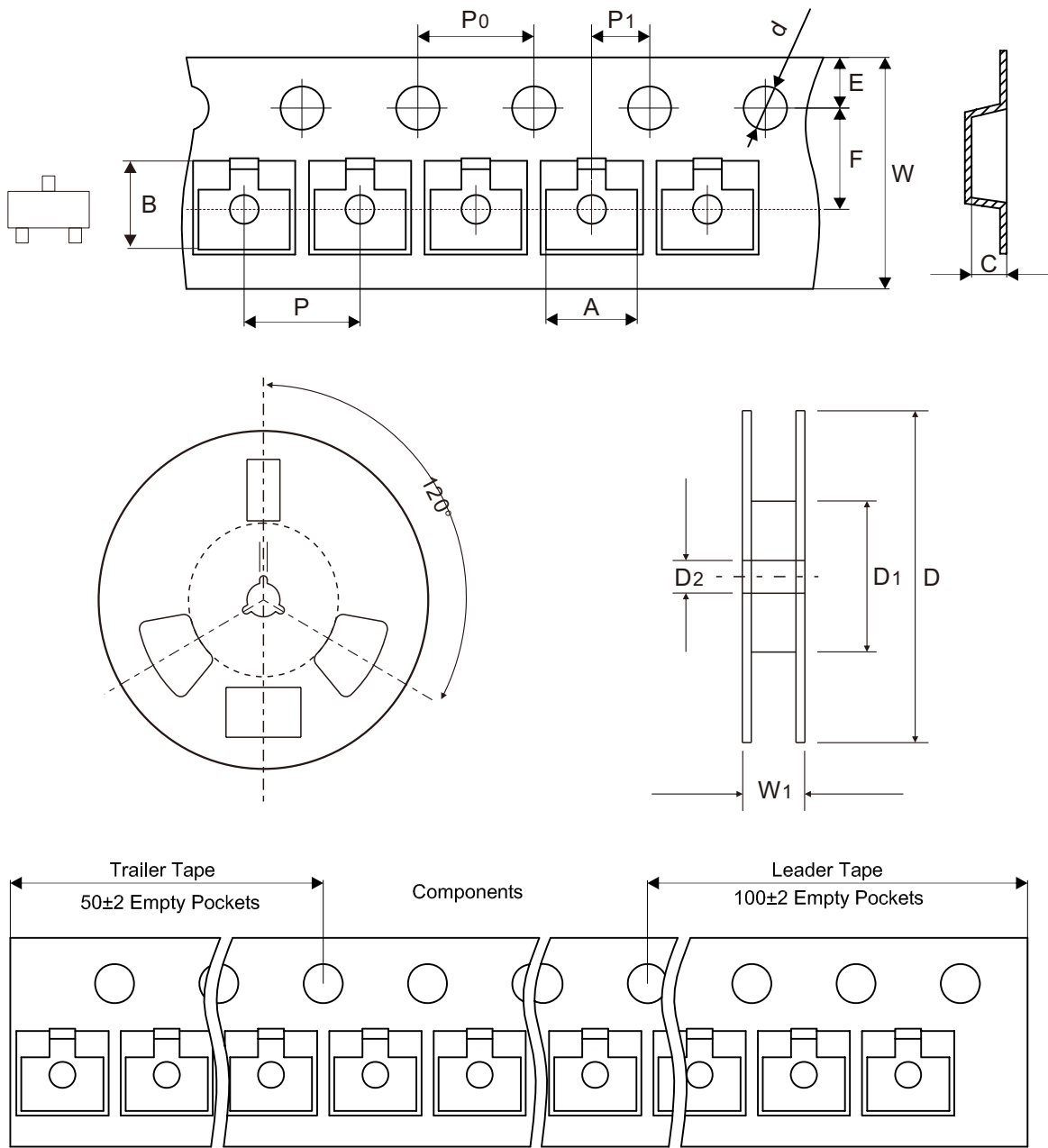


Fig.4 - Power Derating Curve



Reel Taping Specification

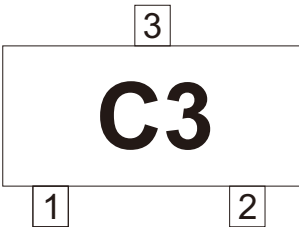


| SOT-23 | SYMBOL | A             | B             | C             | d             | D             | D1            | D2            |
|--------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|        | (mm)   | 3.15 ± 0.10   | 2.77 ± 0.10   | 1.22 ± 0.10   | 1.50 ± 0.10   | 178.00 ± 2.00 | 54.40 ± 1.00  | 13.00 ± 1.00  |
|        | (inch) | 0.124 ± 0.004 | 0.109 ± 0.004 | 0.048 ± 0.004 | 0.059 ± 0.004 | 7.008 ± 0.079 | 2.142 ± 0.039 | 0.512 ± 0.039 |

| SOT-23 | SYMBOL | E             | F             | P             | P0            | P1            | W                        | W1            |
|--------|--------|---------------|---------------|---------------|---------------|---------------|--------------------------|---------------|
|        | (mm)   | 1.75 ± 0.10   | 3.50 ± 0.10   | 4.00 ± 0.10   | 4.00 ± 0.10   | 2.00 ± 0.10   | 8.00 + 0.30<br>- 0.10    | 12.30 ± 1.00  |
|        | (inch) | 0.069 ± 0.004 | 0.138 ± 0.004 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.315 + 0.012<br>- 0.004 | 0.484 ± 0.039 |

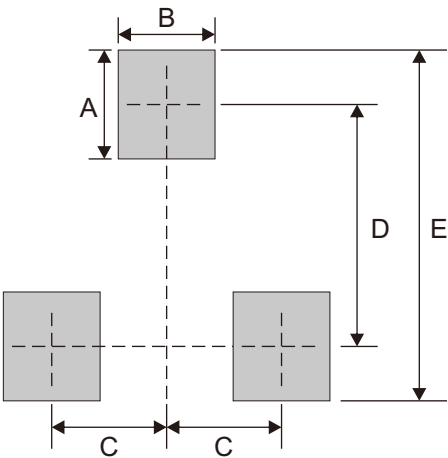
Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| CDST226-G   | C3           |



Suggested PAD Layout

| SIZE | SOT-23 |        |
|------|--------|--------|
|      | (mm)   | (inch) |
| A    | 0.90   | 0.035  |
| B    | 0.80   | 0.031  |
| C    | 0.95   | 0.037  |
| D    | 2.00   | 0.079  |
| E    | 2.90   | 0.114  |



Standard Packaging

| Case Type | REEL PACK  |                  |
|-----------|------------|------------------|
|           | REEL (pcs) | Reel Size (inch) |
| SOT-23    | 3,000      | 7                |