

## CDSZC01100-HF

**$I_o = 100 \text{ mA}$**   
 **$V_R = 80 \text{ Volts}$**   
**RoHS Device**  
**Halogen Free**



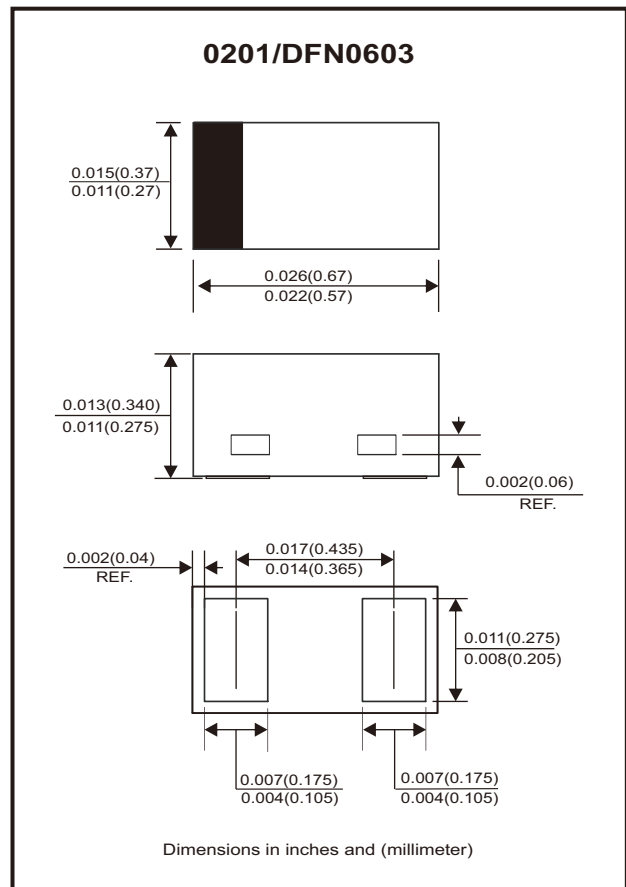
### Features

- High Speed.
- Designed for mounting on ultra small surface.
- Extremely thin/leadless package.
- High mounting capability, strong surge withstand, high reliability.
- Low capacitance.

### Mechanical data

- Case: 0201/DFN0603 package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any
- Weight: 0.0004 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           |                      | $V_{RRM}$ |     |     | 100  | V                |
| Reverse voltage                           |                      | $V_R$     |     |     | 80   | V                |
| Repetitive peak forward current           |                      | $I_{FM}$  |     |     | 300  | mA               |
| Average forward current                   |                      | $I_o$     |     |     | 100  | mA               |
| Non-repetitive peak forward surge current | $T_p=1.0\mu\text{s}$ | $I_{FSM}$ |     |     | 2    | A                |
| Power dissipation                         |                      | $P_D$     |     |     | 200  | mW               |
| Operating temperature range               |                      | $T_J$     | -40 |     | +150 | $^\circ\text{C}$ |
| Storage temperature range                 |                      | $T_{STG}$ | -55 |     | +150 | $^\circ\text{C}$ |

## Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter                     | Conditions  | Symbol   | Min | Typ  | Max | Unit          |
|-------------------------------|---|----------|-----|------|-----|---------------|
| Forward voltage               | $I_F = 1\text{mA}$  | $V_F$    |     | 0.61 |     | V             |
|                               | $I_F = 10\text{mA}$   |          |     | 0.75 |     | V             |
|                               | $I_F = 100\text{mA}$  |          |     | 0.93 | 1.2 | V             |
| Reverse current               | $V_R = 30\text{V}$  | $I_R$    |     |      | 0.3 | $\mu\text{A}$ |
|                               | $V_R = 80\text{V}$  |          |     |      | 0.5 | $\mu\text{A}$ |
| Capacitance between terminals | $f = 1\text{MHz}$ , and 0 VDC reverse voltage                                 | $C_T$    |     | 0.35 | 3   | pF            |
| Reverse recovery time         | $I_F = I_R = 10\text{mA}$ , $R_L = 100\ \text{ohms}$<br>$I_{RR} = 1\text{mA}$ | $T_{RR}$ |     |      | 4   | nS            |

## RATING AND TYPICAL CHARACTERISTIC CURVES (CDSZC01100-HF)

Fig.1 - Forward Characteristics

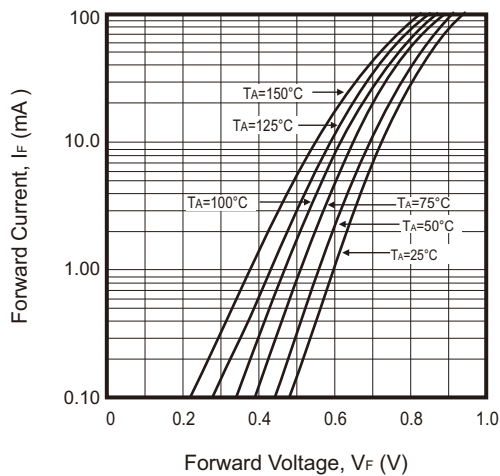


Fig.2 - Reverse Characteristics

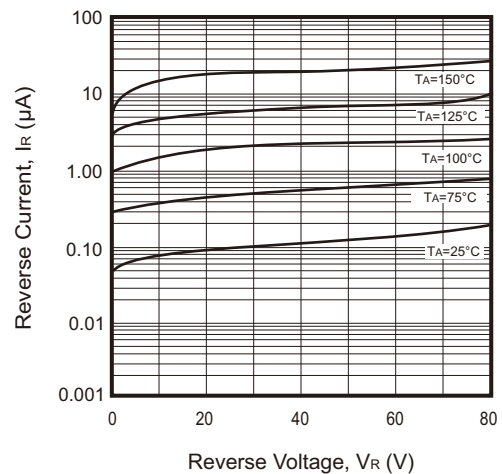


Fig.3 - Capacitance Between Terminals Characteristics

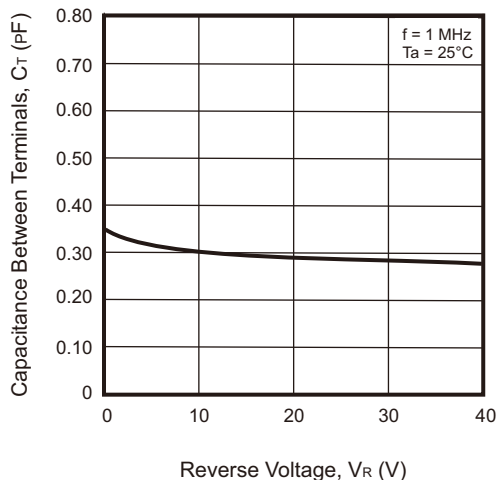
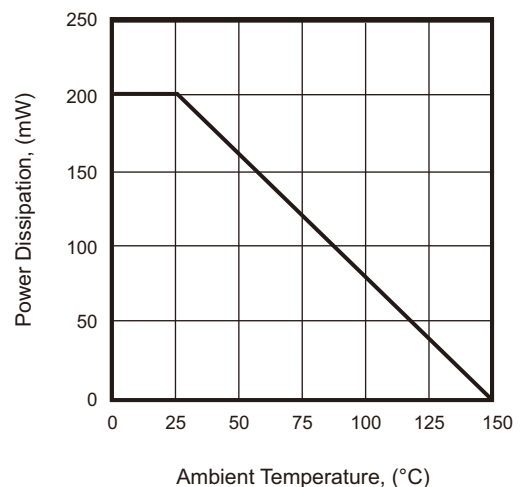
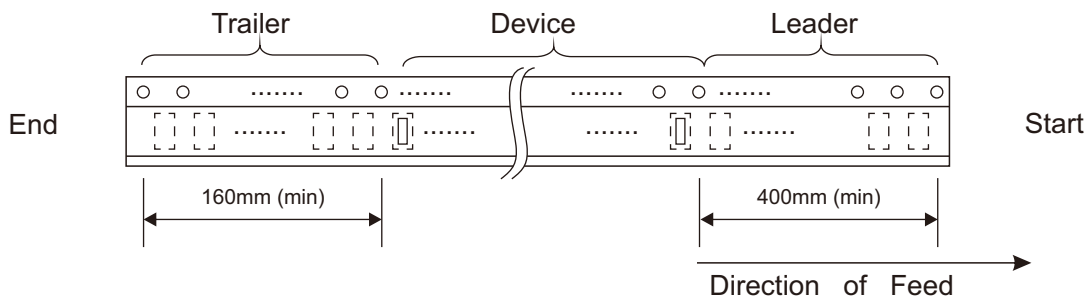
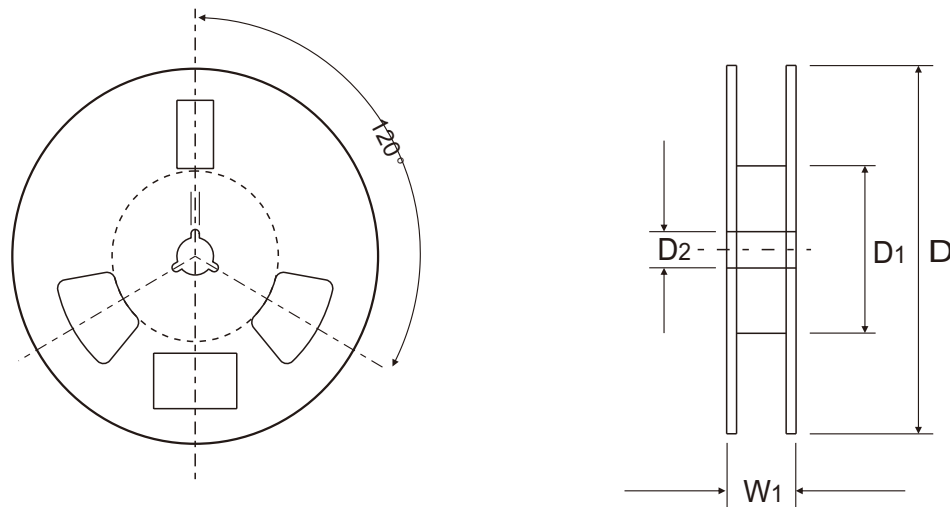
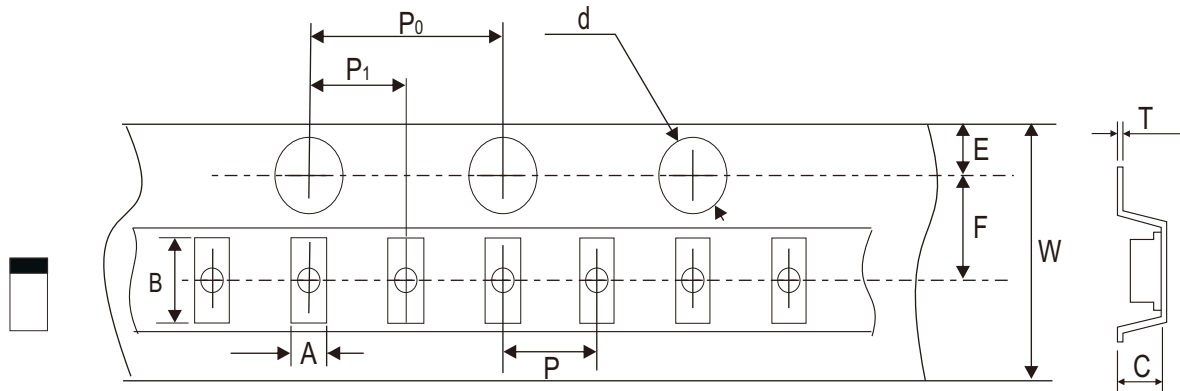


Fig.4 - Power Derating Curve



## Reel Taping Specification



| 0201<br>(DFN0603) | SYMBOL | A             | B             | C             | d                        | D             | D1            | D2            |
|-------------------|--------|---------------|---------------|---------------|--------------------------|---------------|---------------|---------------|
|                   | (mm)   | 0.41 ± 0.03   | 0.71 ± 0.03   | 0.38 ± 0.03   | 1.50 + 0.10<br>- 0.00    | 178.00 ± 1.00 | 60.00 ± 0.50  | 13.50 ± 0.20  |
|                   | (inch) | 0.016 ± 0.001 | 0.028 ± 0.001 | 0.015 ± 0.001 | 0.059 + 0.004<br>- 0.000 | 7.008 ± 0.039 | 2.362 ± 0.020 | 0.531 ± 0.008 |

| 0201<br>(DFN0603) | SYMBOL | E             | F             | P             | P0            | P1            | T             | W                        | W1                       |
|-------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|--------------------------|--------------------------|
|                   | (mm)   | 1.75 ± 0.10   | 3.50 ± 0.05   | 2.00 ± 0.05   | 4.00 ± 0.10   | 2.00 ± 0.05   | 0.20 ± 0.02   | 8.00 + 0.30<br>- 0.10    | 12.00 + 0.50<br>- 0.00   |
|                   | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.079 ± 0.002 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.008 ± 0.001 | 0.315 + 0.012<br>- 0.004 | 0.472 + 0.020<br>- 0.000 |

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

REV:B

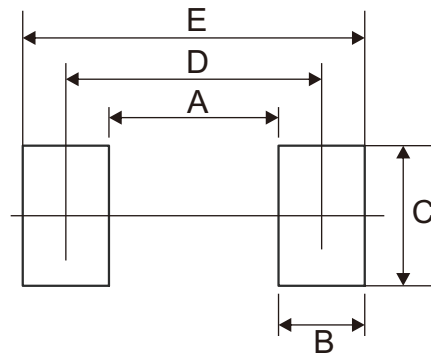
## Marking Code

| Part Number   | Marking Code |
|---------------|--------------|
| CDSZC01100-HF | S            |



## Suggested PAD Layout

| SIZE | 0201(DFN0603) |        |
|------|---------------|--------|
|      | (mm)          | (inch) |
| A    | 0.16          | 0.006  |
| B    | 0.24          | 0.009  |
| C    | 0.34          | 0.013  |
| D    | 0.40          | 0.016  |
| E    | 0.64          | 0.025  |



## Standard Packaging

| Case Type      | REEL PACK  |                  |
|----------------|------------|------------------|
|                | REEL (pcs) | Reel Size (inch) |
| 0201 (DFN0603) | 10,000     | 7                |