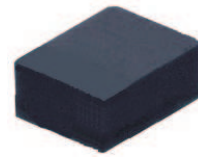


## CPDTR055V0C-HF

RoHS Device  
Halogen Free

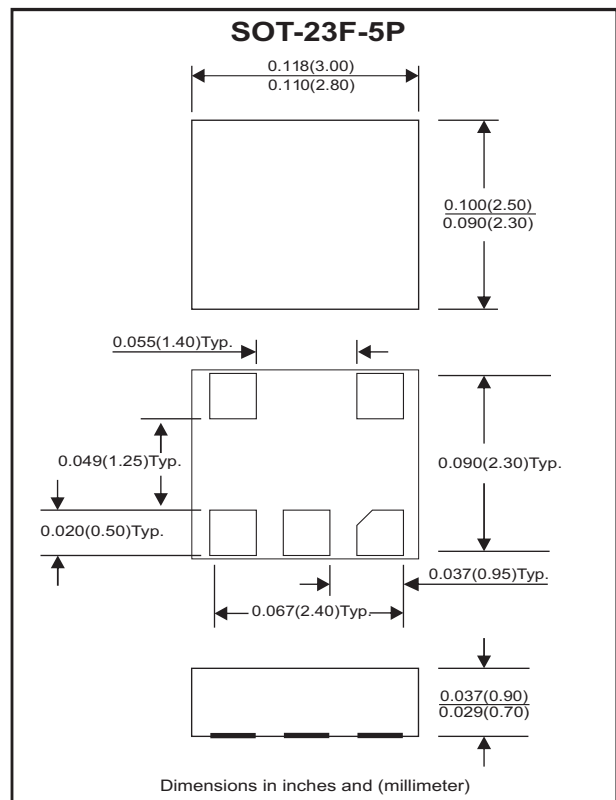
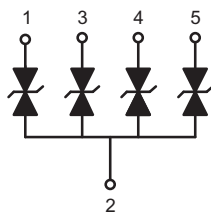


### Features

- Bi-directional ESD protection of 4 lines.
- Operating voltage: 5V.

### Mechanical data

- Case: SOT-23F-5P standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750D, method 2026.
- Marking code: E05
- Mounting position: Any.
- Weight: 0.012 gram(approx.).



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

| Parameter               | Conditions                                   | Symbol    | Min | Typ | Max     | Unit          |
|-------------------------|----------------------------------------------|-----------|-----|-----|---------|---------------|
| Diode breakdown voltage | $I_R = 1\text{mA}$                           | $V_{BD}$  | 6.1 | 7.0 |         | V             |
| Leakage current         | $V_R = 5\text{V}$                            | $I_L$     |     | 0.1 | 2.0     | $\mu\text{A}$ |
| Junction capacitance    | $V_R = 0\text{V}, f = 1\text{MHz}$           | $C_T$     |     | 25  | 30      | pF            |
| ESD capability          | IEC 61000-4-2(air)<br>IEC 61000-4-2(contact) | ESD       |     |     | 16<br>8 | kV            |
| Operation temperature   |                                              | $T_J$     |     |     | 125     | °C            |
| Storage temperature     |                                              | $T_{STG}$ | -55 |     | 150     | °C            |

RATING AND CHARACTERISTIC CURVES (CPDTR055V0C-HF)

Fig. 1 - Reverse characteristics

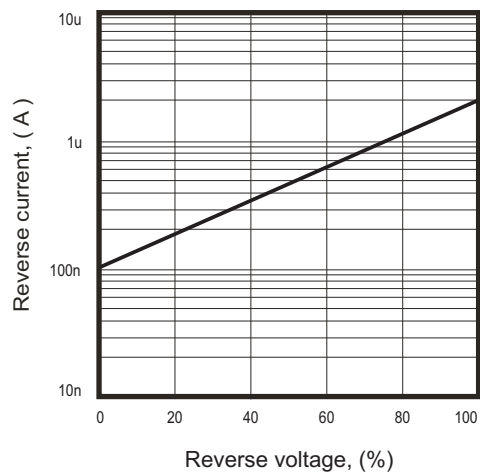


Fig. 2 - Capacitance between terminals characteristics

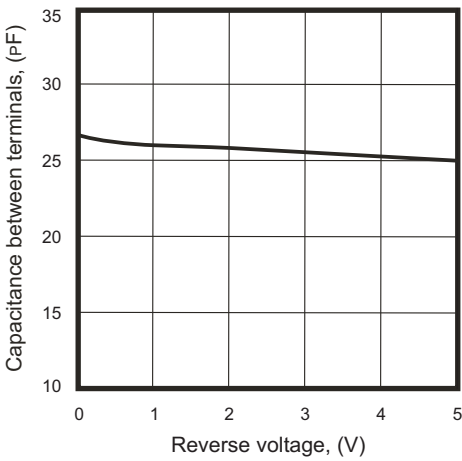
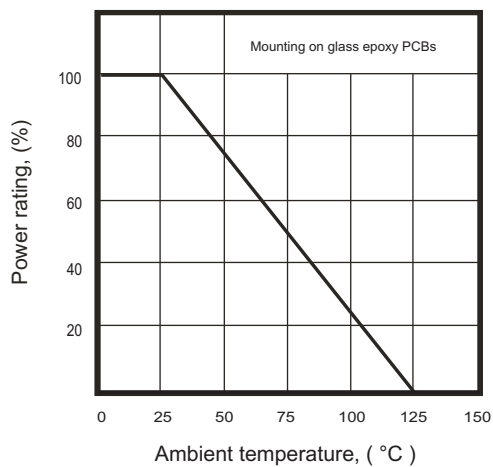
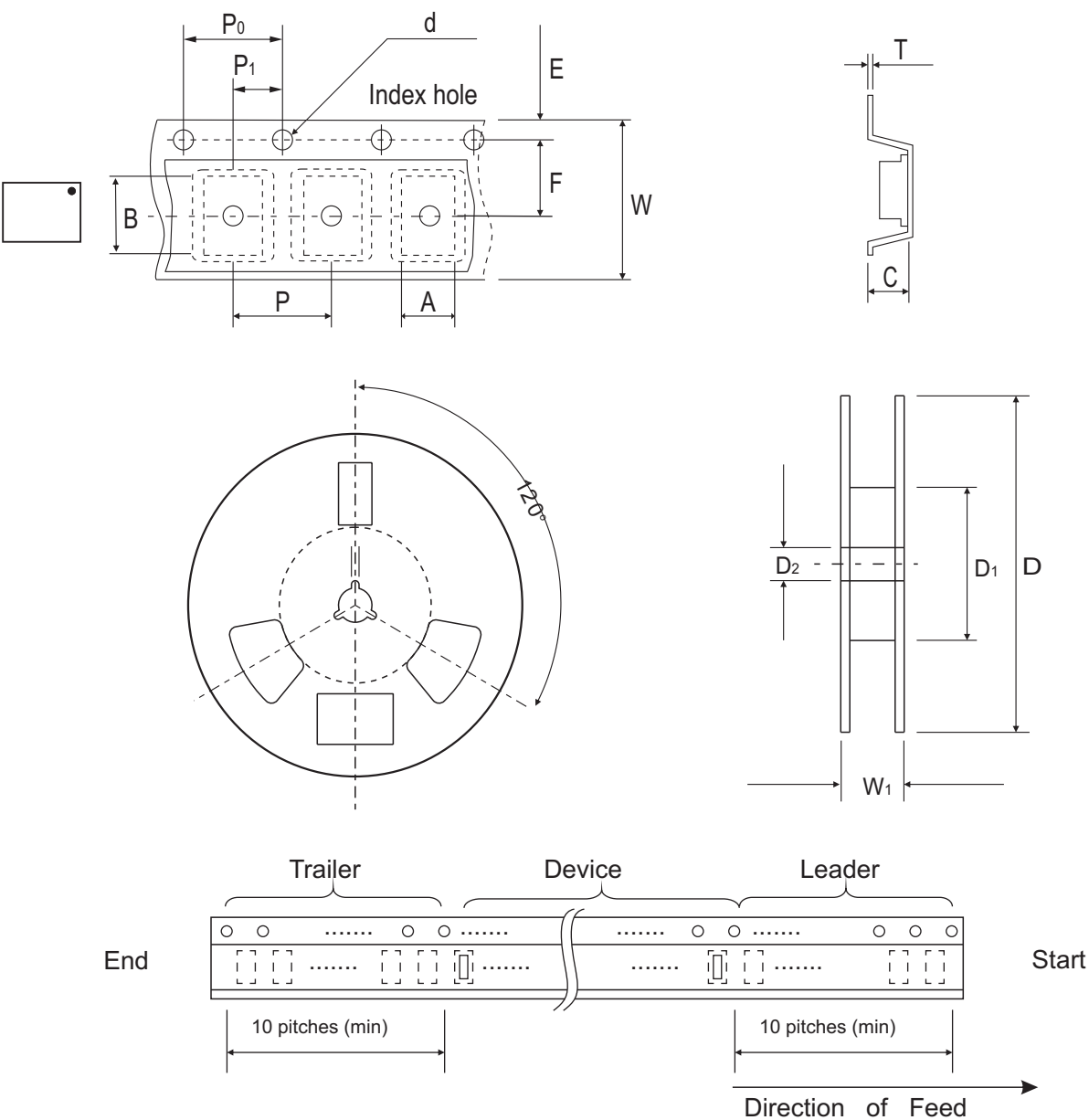


Fig. 3 - Power rating derating curve



Reel Taping Specification



| SOT-23F-5P | SYMBOL | A             | B             | C             | d             | D            | D <sub>1</sub> | D <sub>2</sub> |
|------------|--------|---------------|---------------|---------------|---------------|--------------|----------------|----------------|
|            | (mm)   | 3.15 ± 0.10   | 2.65 ± 0.10   | 0.95 ± 0.10   | 1.55 ± 0.10   | 178 ± 1      | 60.0 MIN.      | 13.0 ± 0.20    |
|            | (inch) | 0.124 ± 0.004 | 0.104 ± 0.004 | 0.037 ± 0.004 | 0.061 ± 0.004 | 7.008 ± 0.04 | 2.362 MIN.     | 0.512 ± 0.008  |

| SOT-23F-5P | 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  | 0.009 ± 0.002 | 0.315 ± 0.008 | 0.531 MAX.     |

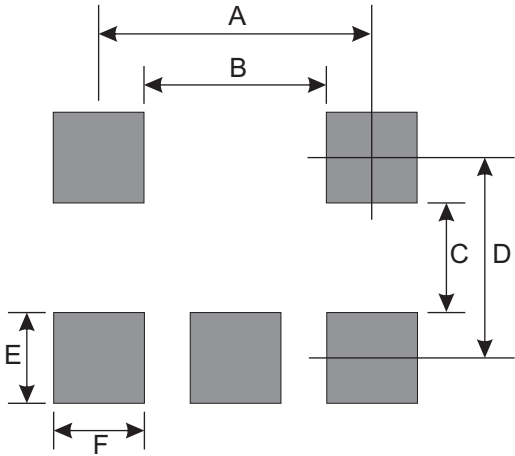
Marking Code

| Part Number    | Marking Code |
|----------------|--------------|
| CPDTR055V0C-HF | E05          |



Suggested PAD Layout

| SIZE | SOT-23F-5P |        |
|------|------------|--------|
|      | (mm)       | (inch) |
| A    | 1.90       | 0.075  |
| B    | 1.10       | 0.043  |
| C    | 0.90       | 0.035  |
| D    | 1.70       | 0.067  |
| E    | 0.80       | 0.031  |
| F    | 0.80       | 0.031  |



Standard Packaging

| Case Type  | Qty Per Reel | Reel Size |
|------------|--------------|-----------|
|            | (Pcs)        | (inch)    |
| SOT-23F-5P | 3,000        | 7         |