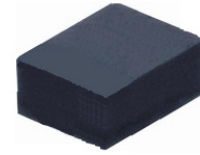


## CPDTR035V0U-HF (RoHS Device)

### Features

- Halogen free.
- Uni-directional ESD protection
- IEC 61000-4-2 8kV(contact), 16kV(air).
- Working voltage:5V
- High component density.



### Mechanical data

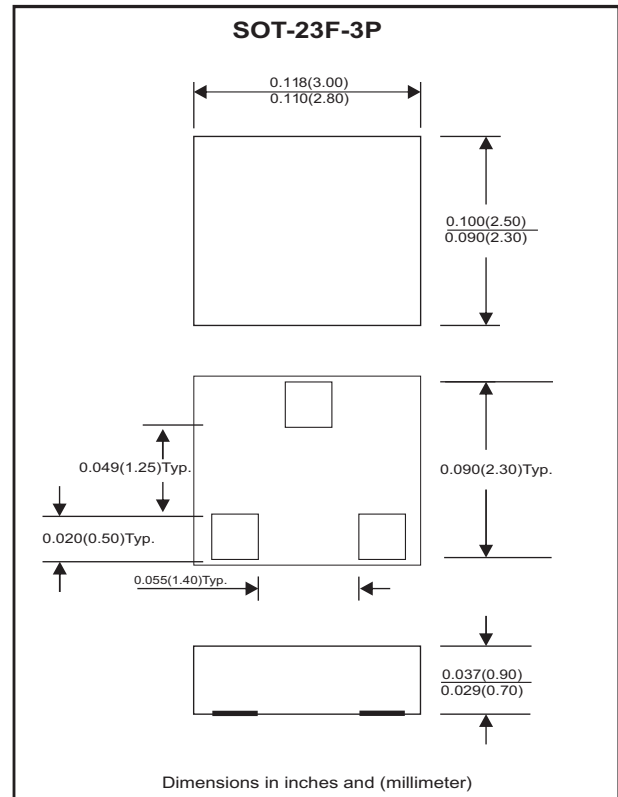
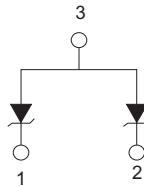
Case: SOT-23F-3P Standard package ,  
molded plastic.

Terminals: Gold plated, solderable per  
MIL-STD-750, method 2026.

Marking Code: E5U

Mounting position: Any.

Weight: 0.012 gram (approx.).



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

| Parameter               | Conditions                                                                             | Symbol    | Min | Typ | Max     | Unit               |
|-------------------------|----------------------------------------------------------------------------------------|-----------|-----|-----|---------|--------------------|
| Forward voltage         | $I_F = 10\text{mA}$                                                                    | $V_F$     |     | 0.8 |         | V                  |
| Diode breakdown voltage | $I_R = 1\text{mA}$                                                                     | $V_{BD}$  | 6   |     |         | V                  |
| Leakage current         | $V_R = 5\text{V}$                                                                      | $I_L$     |     | 0.1 | 1.0     | $\mu\text{A}$      |
| Junction capacitance    | $V_R = 0\text{V}, f = 1\text{MHz}$                                                     | $C_T$     |     | 60  | 80      | pF                 |
| ESD capability          | IEC 61000-4-2(air)<br>IEC 61000-4-2(Contact)                                           | ESD       |     |     | 16<br>8 | kV                 |
| Clamping voltage        | $I_{PP} = 1\text{A}, T_P=8/20\mu\text{s}$<br>$I_{PP} = 8\text{A}, T_P=8/20\mu\text{s}$ | $V_C$     |     |     | 8<br>10 | V                  |
| Peak pulse power        |                                                                                        | $P_{PP}$  |     |     | 80      | W                  |
| Operation temperature   |                                                                                        | $T_J$     |     |     | 125     | $^{\circ}\text{C}$ |
| Storage temperature     |                                                                                        | $T_{STG}$ | -55 |     | 150     | $^{\circ}\text{C}$ |

RATING AND CHARACTERISTIC CURVES (CPDTR035V0U-HF)

Fig. 1 - 8/20us Peak pulse current wave form acc. IEC 61000-4-5

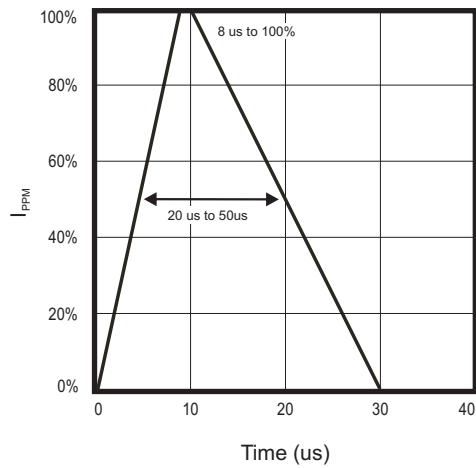


Fig. 2 - Power rating derating curve

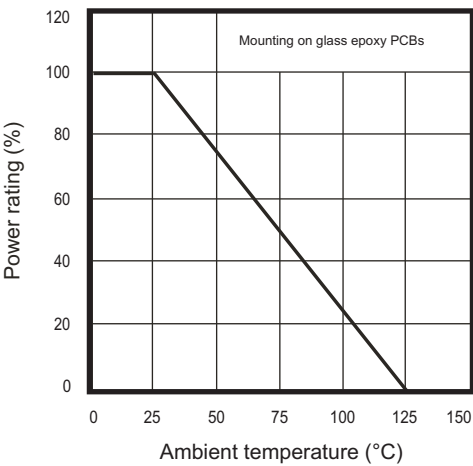


Fig. 3 - Clamping volatage vs. peak pulse current

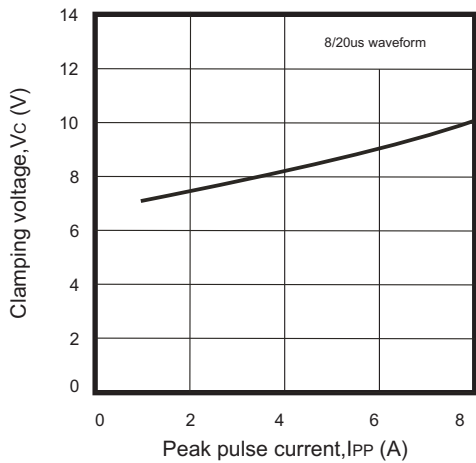
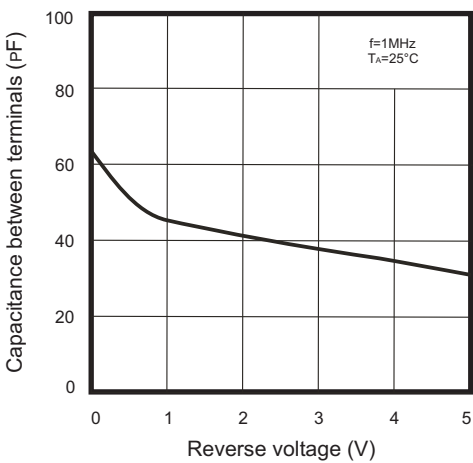


Fig. 4 - Capacitance between terminals characteristics



REV:B  
Page 3

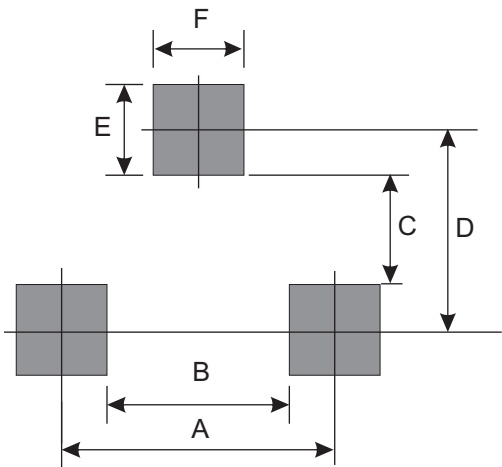
Marking Code

| Part Number    | Marking Code |
|----------------|--------------|
| CPDTR035V0U-HF | E5U          |



Suggested PAD Layout

| SIZE | CPDTR035V0U-HF |        |
|------|----------------|--------|
|      | (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 Package

| Case Type      | Qty Per Reel | Reel Size |
|----------------|--------------|-----------|
|                | (Pcs)        | (inch)    |
| CPDTR035V0U-HF | 3000         | 7         |