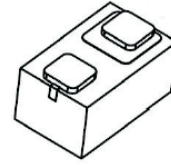


CPDVRC5V0L-HF

RoHS Device
Halogen Free



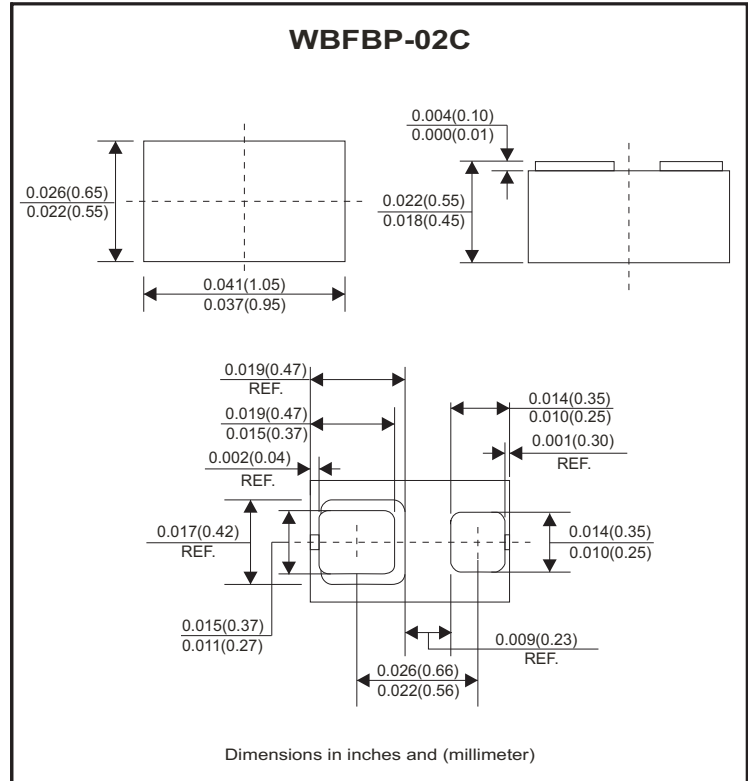
Features

- IEC61000-4-2 Level 4 ESD Protection.
- Bi-directional ESD protection of one line.
- Fast response time.
- Low Leakage current.
- Low reverse clamping voltage.
- Low capacitance.

Mechanical data

- Case: WBFBP-02C Plastic Encapsulate Diodes
- Mounting position: Any.

Circuit Diagram



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

| Parameter | Symbol | Value | Unit | |
|---------------------------|------------------------------|-----------|-------------|----|
| IEC 61000-4-2 ESD voltage | Air Model | ±20 | kV | |
| | Contact Model | ±20 | | |
| | JESD22-A114-B ESD Voltage | ±16 | | |
| | ESD Voltage | ±0.4 | | |
| Peak Pulse Power | $P_{PP}^{(2)}$ | 50 | W | |
| Peak Pulse Current | $I_{PP}^{(2)}$ | 5 | A | |
| Lead Solder Temperature | Maximum (10 Second Duration) | T_L | 260 | °C |
| Junction temperature rang | | T_J | 150 | °C |
| Storage temperature rang | | T_{STG} | -55 to +150 | °C |

Notes: 1. Device stressed with ten non-repetitive ESD pulses.

2. Non-repetitive current pulse 8/20µs exponential decay waveform according to IEC61000-4-5.

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

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|---------------------------|--------------------------------------|-----------------|-----|-----|-----|---------------|
| Reverse stand-Off voltage | | $V_{RWM}^{(1)}$ | | | 5 | V |
| Reverse leakage current | $V_{RWM} = 5\text{ V}$ | I_R | | | 0.1 | μA |
| Breakdown voltage | $I_T = 1\text{ mA}$ | $V_{(BR)}$ | 5.8 | | 8 | V |
| Clamping voltage | $I_{PP} = 5\text{ A}$ | $V_C^{(2)}$ | | | 10 | V |
| Junction capacitance | $V_R = 0\text{ V}, f = 1\text{ MHz}$ | C_J | | 12 | 15 | pF |

Notes: 1. Other voltages available upon request.

2. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

RATING AND CHARACTERISTIC CURVES (CPDVRC5V0L-HF)

Fig.1 - 8/20 μs Peak Pulse Current Waveform ACC. IEC 61000-4-5

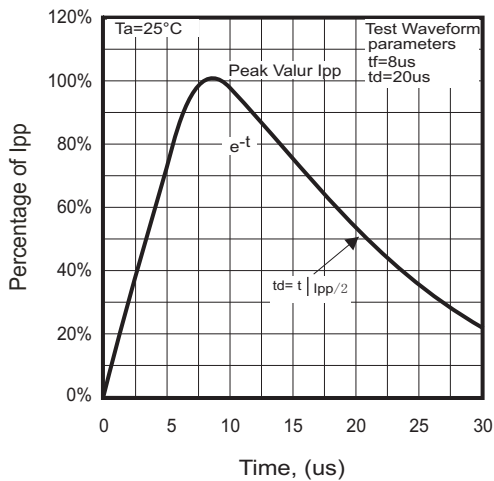


Fig.2 - Capacitance Characteristics

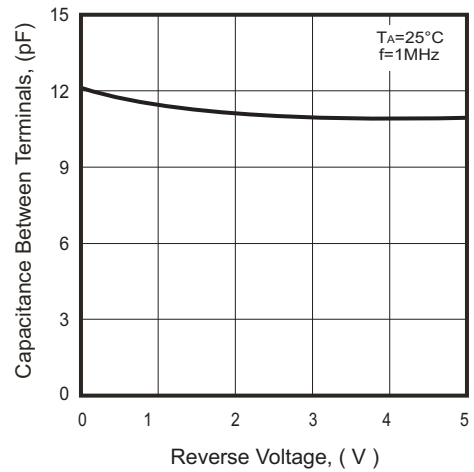
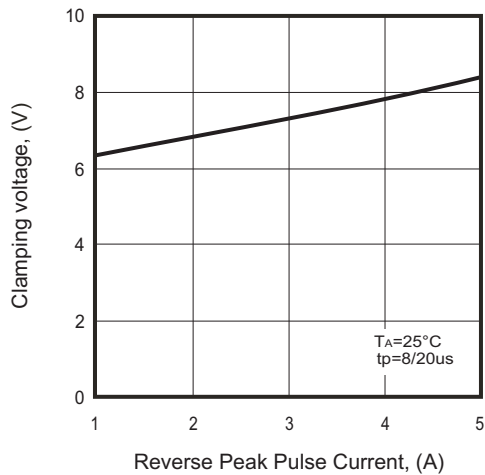
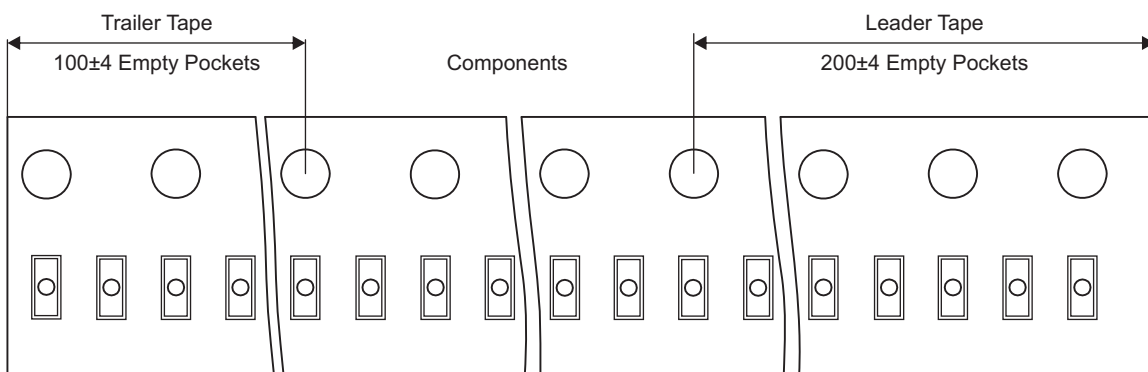
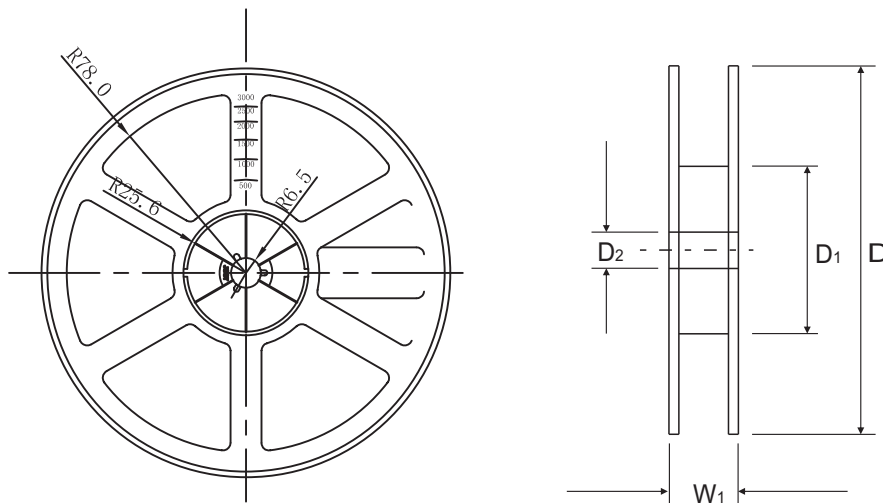
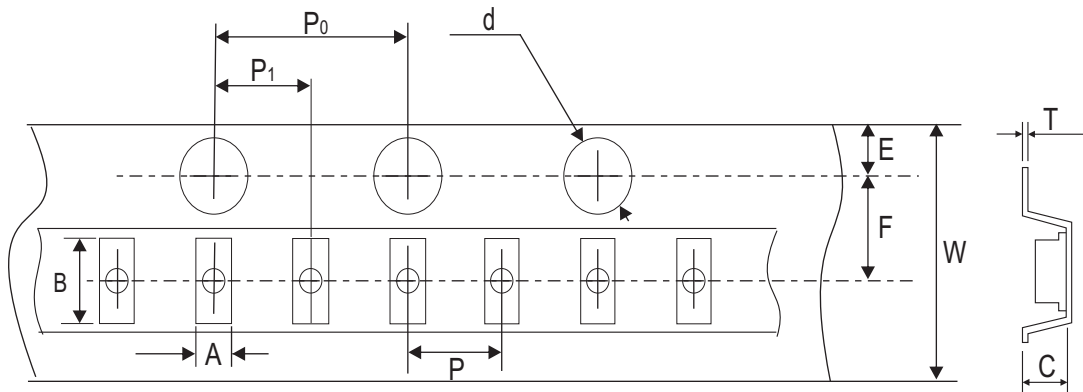


Fig.3 - $V_C - I_{PP}$



Reel Taping Specification



| WFBP-02C | SYMBOL | A | B | C | d | D | D1 | D2 |
|----------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | (mm) | 0.66 ± 0.05 | 1.15 ± 0.05 | 0.66 ± 0.05 | 1.50 ± 0.10 | 178.00 ± 2.00 | 54.40 ± 1.00 | 13.00 ± 1.00 |
| | (inch) | 0.026 ± 0.002 | 0.045 ± 0.002 | 0.026 ± 0.002 | 0.059 ± 0.004 | 7.008 ± 0.079 | 2.142 ± 0.039 | 0.512 ± 0.039 |

| WFBP-02C | SYMBOL | E | F | P | P0 | P1 | W | W1 |
|----------|--------|---------------|---------------|---------------|---------------|---------------|------------------------|---------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.10 | 2.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 8.00 + 0.30 / -0.10 | 12.30 ± 1.00 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.004 | 0.079 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.004 | 0.315 + 0.012 / -0.004 | 0.484 ± 0.039 |

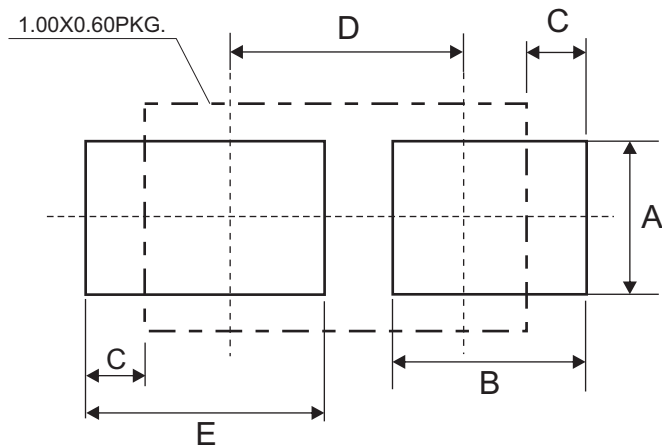
Marking Code

| Part Number | Marking Code |
|---------------|--------------|
| CPDVRC5V0L-HF | H |



Suggested PAD Layout

| SIZE | WBFBP-02C | |
|------|-----------|-----------|
| | (mm) | (inch) |
| A | 2 X 0.40 | 2 X 0.016 |
| B | 0.50 | 0.020 |
| C | 0.15 | 0.006 |
| D | 0.605 | 0.024 |
| E | 0.62 | 0.024 |



Standard Packaging

| Case Type | REEL PACK | |
|-----------|--------------|------------------|
| | REEL (pcs) | Reel Size (inch) |
| WBFBP-02C | 10,000 | 7 |