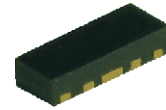


CPDVR105V0USP-HF

RoHS Device
Halogen Free



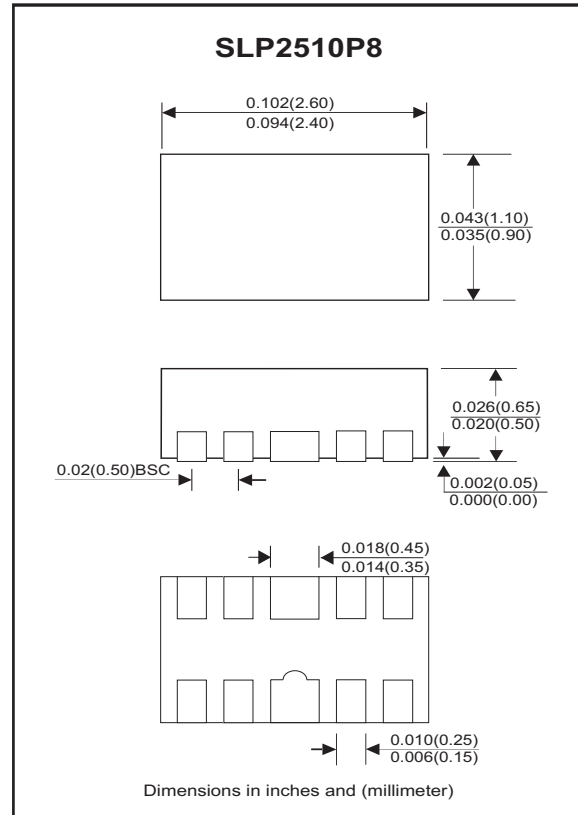
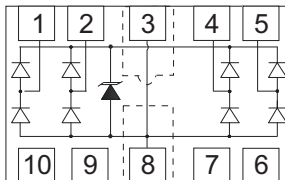
Features

- IEC61000-4-2 Level 4 ESD Protection.
- IEC61000-4-4 Level 4 FET protection.
- Protects four high speed I/O lines
- Low clamping voltage
- Working Voltage: 5V
- Low leakage current

Mechanical data

- Case: SLP2510P8 small outline plastic package
- Terminals: Matte tin plated, solderable per MIL-STD-202,method 208
- Mounting Compound Flammability Rating: UL 94V-0
- High temperature soldering guaranteed:
260°C/10 second
- Weight: 0.015 grams(approx.).

Circuit Diagram



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

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|----------------------------|--|-------------------|-----|-----|-----|------|
| Reverse working voltage | I/O Pins to GND (Note 1) | V _{RWM} | | | 5.0 | V |
| Breakdown voltage | I _T = 1mA, I/O Pin to GND | V _(BR) | 6.0 | | | V |
| Reverse Leakage current | V _{RWM} = 5V, I/O Pin to GND | I _R | | | 1.0 | uA |
| Junction capacitance | V _R = 0V, f = 1MHz between I/Os | C _J | | | 0.4 | pF |
| Junction capacitance | V _R = 0V, f = 1MHz between I/Os GND | C _J | | | 0.8 | pF |
| ESD capability | IEC 61000-4-2(Air) | V _{ESD} | | | ±15 | kV |
| | IEC 61000-4-2(Contact) | V _{ESD} | | | ±8 | kV |
| Clamping voltage | I _{PP} = 1A, I/O Pin to GND(8/20μs) | V _C | | | 15 | V |
| Peak pulse power | T _p =8/20μs waveform | P _{PP} | | | 150 | W |
| Junction temperature range | | T _J | -55 | | 150 | °C |
| Storage temperature range | | T _{STG} | -55 | | 150 | °C |

Note: 1. ESD devices are normally selected according to the working peak reverse voltage (V_{RWM}), which should be equal or greater than the DC or continuous peak operating voltage level.

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

REV:A

RATING AND CHARACTERISTIC CURVES (CPDVR105V0USP-HF)

Fig.1- Non-Repetitive Peak Pulse Power vs. Pulse Time

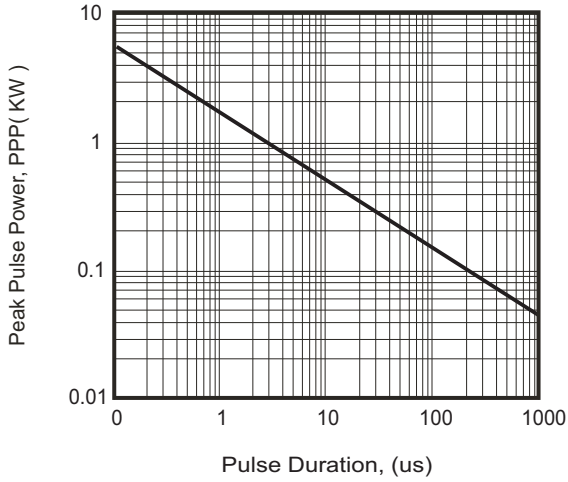


Fig.2- Clamping Voltage vs. Peak Pulse Current

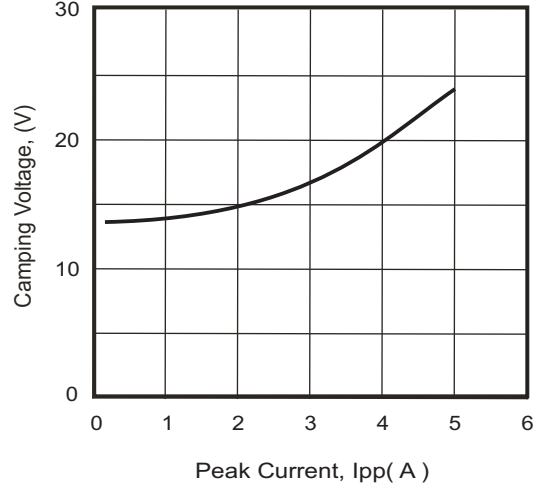


Fig.3- Admissible Power Dissipation Curve

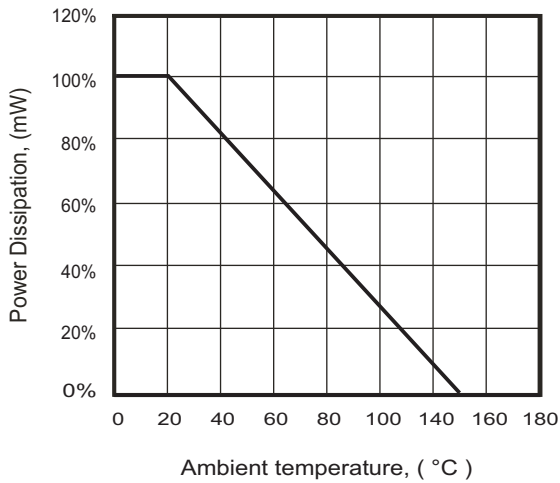
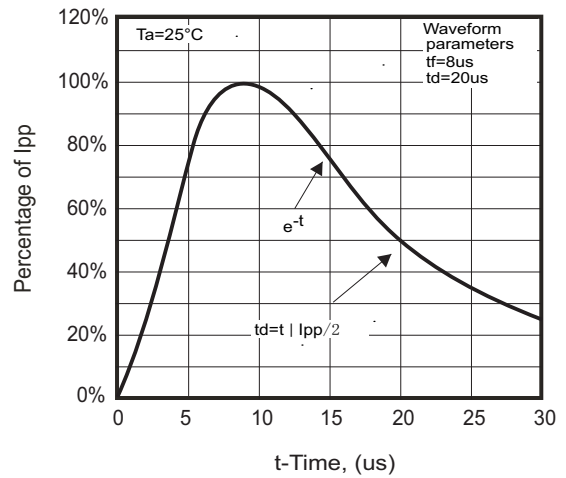
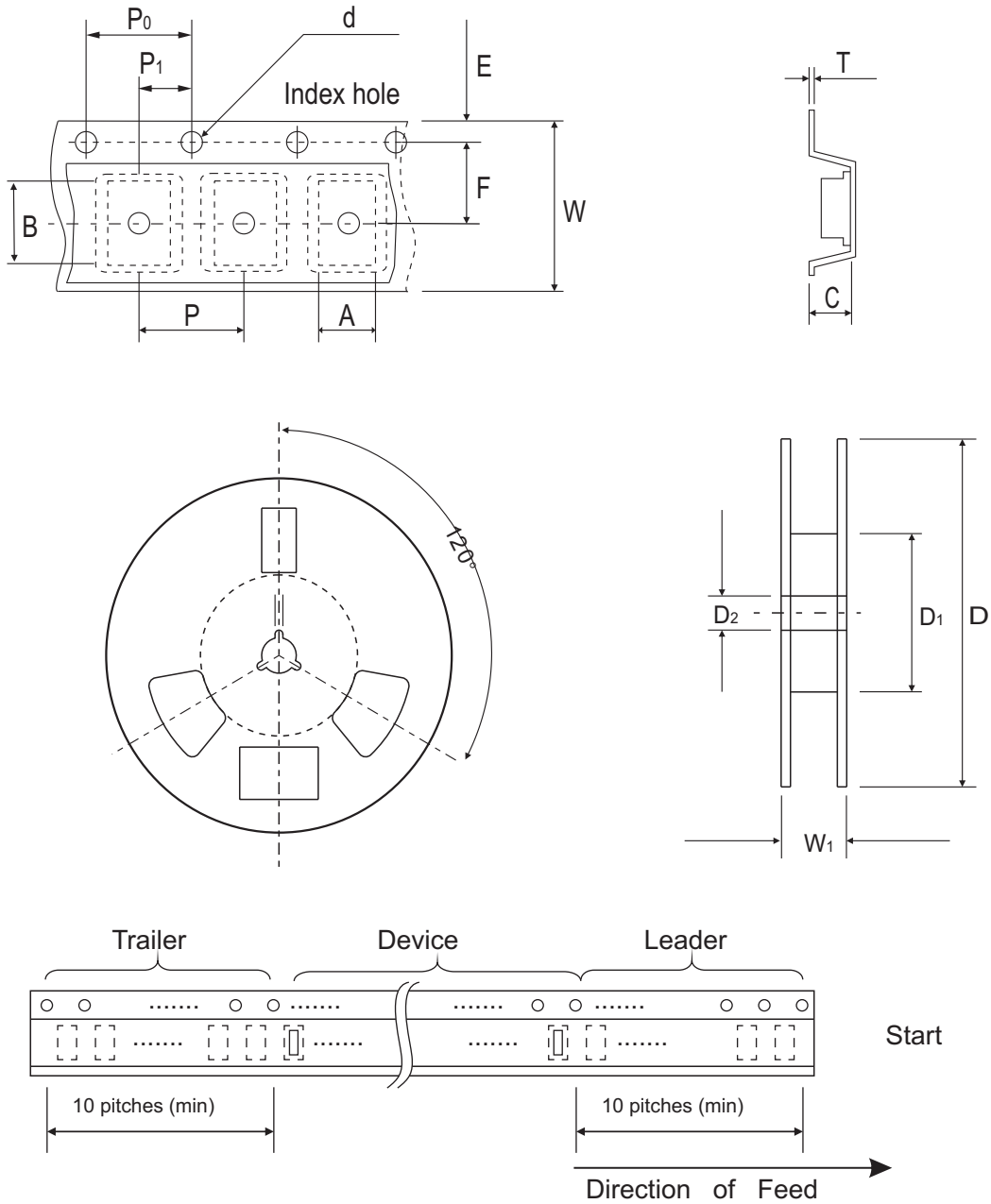


Fig.4- Pulse Waveform



Reel Taping Specification



| SLP2510P8 | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|-----------|--------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| | (mm) | 1.23 ± 0.10 | 2.77 ± 0.10 | 0.70 ± 0.10 | 1.50 ± 0.10 | 178 ± 1 | 54.4 ± 0.40 | 13.0 ± 0.20 |
| | (inch) | 0.048 ± 0.004 | 0.109 ± 0.004 | 0.028 ± 0.004 | 0.059 ± 0.004 | 7.008 ± 0.039 | 2.142 ± 0.016 | 0.512 ± 0.008 |

| SLP2510P8 | SYMBOL | E | F | P | P ₀ | P ₁ | T | W | W ₁ |
|-----------|--------|---------------|---------------|---------------|----------------|----------------|---------------|---------------|----------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 4.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.05 | 0.229 ± 0.013 | 8.10 ± 0.20 | 12.3 ± 0.20 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.157 ± 0.004 | 0.157 ± 0.004 | 0.079 ± 0.002 | 0.009 ± 0.001 | 0.319 ± 0.008 | 0.484 ± 0.008 |

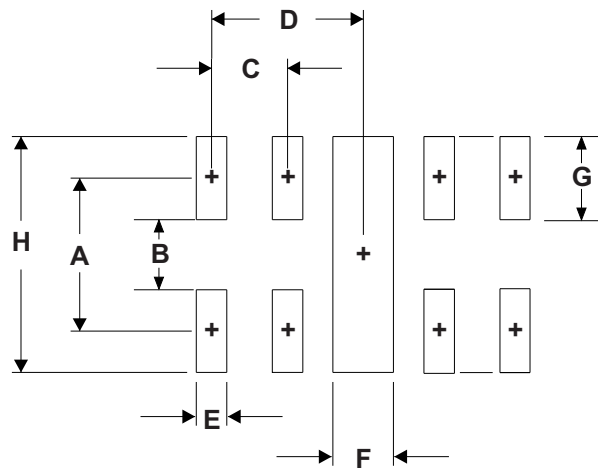
Marking Code

| Part Number | Marking Code |
|------------------|--------------|
| CPDVR105V0USP-HF | P524 |



Suggested PAD Layout

| SIZE | SLP2510P8 | |
|------|-----------|--------|
| | (mm) | (inch) |
| A | 0.875 | 0.034 |
| B | 0.200 | 0.008 |
| C | 0.500 | 0.020 |
| D | 1.000 | 0.039 |
| E | 0.200 | 0.008 |
| F | 0.400 | 0.016 |
| G | 0.675 | 0.027 |
| H | 1.550 | 0.061 |



Standard Packaging

| Case Type | Qty Per Reel | Reel Size |
|-----------|--------------|-----------|
| | (Pcs) | (inch) |
| SLP2510P8 | 3,000 | 7 |