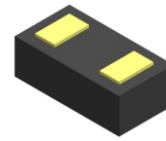


## CPDWL5V0ACP-HF

Ultra small SMD package

RoHS Device

Halogen Free

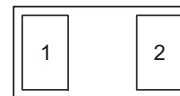


Case 01005B

### Features

- Bi-directional ESD protection.
- High ESD protection level.
- Surface mount package.
- High component density.
- Low clamping voltage.
- Low leakage.
- Working voltage: 5V.

#### Outline



#### Circuit Diagram



### Mechanical data

- Case: 01005 package, molded plastic.
- Mounting position: Any.

Part number	Package	Reel	Reel size	Marking code
CPDWL5V0ACP-HF	01005B	10,000	7 inch	C

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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	$T_P = 8/20\mu s$	$P_{PP}$	108	W
Peak pulse current	$T_P = 8/20\mu s$	$I_{PP}$	4	A
ESD capability	IEC 61000-4-2(air) ICE 61000-4-2(contact)	ESD	$\pm 18$ $\pm 14$	kV
Operating temperature range		$T_j$	-40 to +125	°C
Storage temperature range		$T_{STG}$	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Working peak reverse voltage		$V_{RWM}$			5	V
Breakdown voltage	$I_R = 1mA$	$V_{BR}$	6			V
Reverse leakage current	$V_R = 5V$	$I_R$		1	100	nA
Clamping voltage	$I_{PP} = 1V, T_P = 8/20\mu s$	$V_C$		12	14	V
	$I_{PP} = 4V, T_P = 8/20\mu s$			25	27	
Junction capacitance	$V_R = 0V, f = 1MHz$	$C_J$		0.42		pF

## Typical Rating and Characteristic Curves (CPDWL5V0ACP-HF)

Fig.1 - 8/20 $\mu$ s Peak Pulse Current Waveform Acc. IEC 61000-4-5

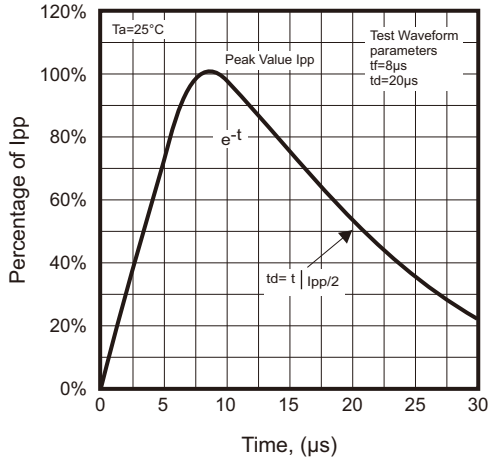


Fig.2 - Power Rating Derating Curve

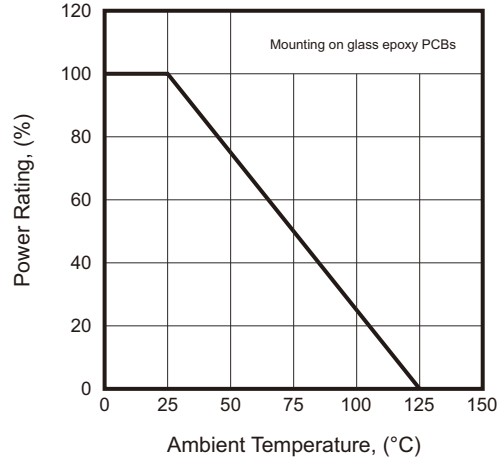


Fig.3 - Typical Clamping Voltage vs. Peak Pulse Current

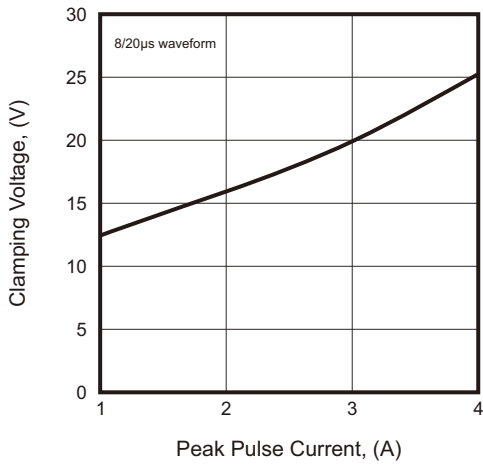
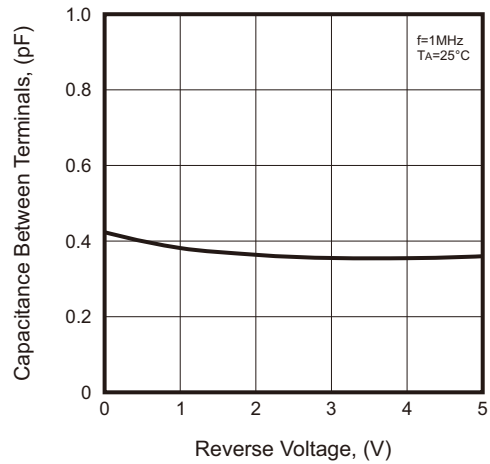
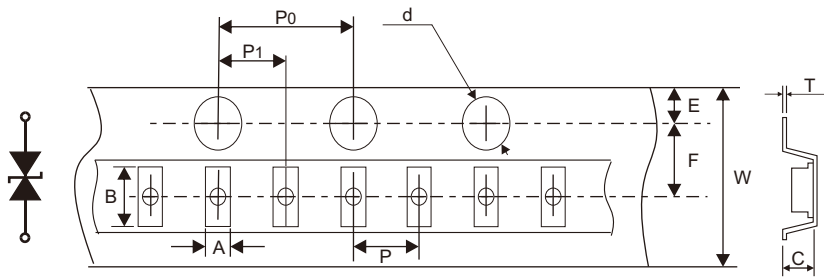


Fig.4 - Typical Capacitance Between Terminals Characteristics



## Taping Specification

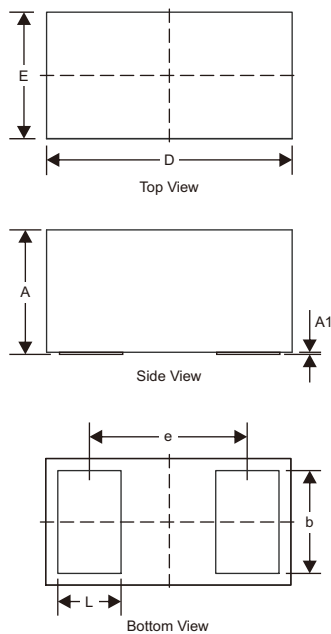


SIZE	01005	
	(mm)	
A	0.27±0.02	
B	0.49±0.02	
C	0.215±0.02	
P	2.00±0.05	
P0	4.00±0.10	
P1	2.00±0.05	
d	1.50±0.10	
E	1.75±0.10	
F	3.50±0.05	
W	8.00+0.30/-0.10	
T	0.20±0.05	

## Package Dimensions

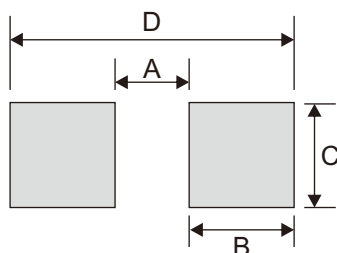
WL, 0.42x0.22, 0.25P

Case 01005B



Symbol	Millimeters		
	Min	Nom	Max
A	0.15	0.17	0.20
A1	-	-	0.01
b	0.13	0.15	0.17
D	0.40	0.42	0.44
E	0.20	0.22	0.24
e	-	0.25	-
L	0.06	0.08	0.10

## Suggested P.C.B. PAD Layout



Size	01005	
	(mm)	(inch)
A	0.12	0.005
B	0.17	0.007
C	0.17	0.007
D	0.46	0.018