

## CPDWL5V0SPC-HF

RoHS Device  
Halogen Free

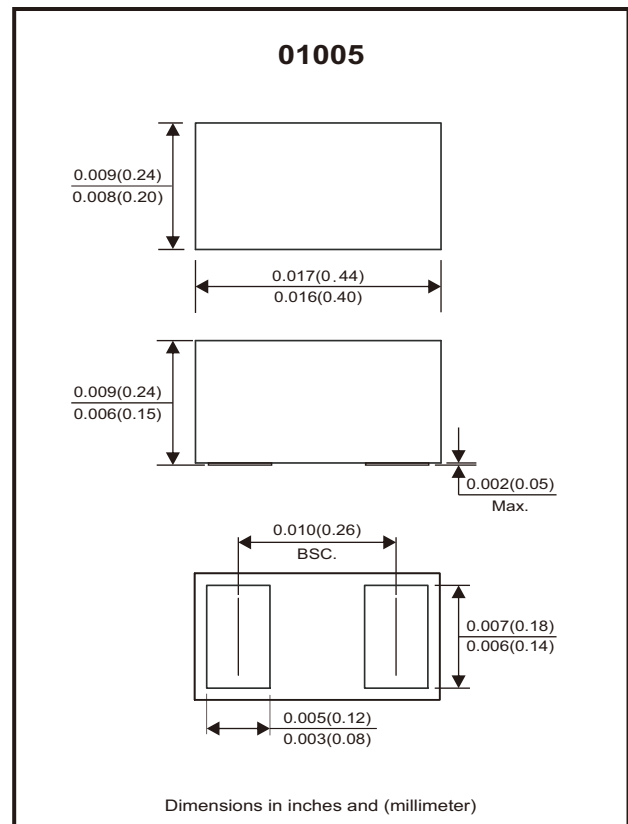
### Features

- Bi-directional ESD protection.
- Surface mount package.
- Ultra small SMD package:01005
- High component density.
- Low clamping voltage.
- Low leakage.
- Ultra-Low capacitance: <0.3 pF

### Mechanical data

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

### Circuit Diagram



### Maximum Rating (at T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	T <sub>P</sub> = 8/20μs	P <sub>PP</sub>	35	W
Peak pulse current	T <sub>P</sub> = 8/20μs (Note 1)	I <sub>PP</sub>	2.5	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact) (Note 2)	ESD	±15 ±12	kV
Operating temperature range		T <sub>j</sub>	-40 ~ +125	°C
Storage temperature range		T <sub>STG</sub>	-55 ~ +150	°C

Notes: 1. Stress pulse: 8/20μs current waveform according to IEC 61000-4-5  
2. ESD according to IEC61000-4-2

## 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	$I_T = 1\text{mA}$	$V_{BR}$	6			V
Reverse leakage current	$V_{RWM} = 5\text{V}$	$I_R$		1	100	nA
Clamping voltage	$I_{PP} = 1\text{A}, T_P = 8/20\mu\text{s}$	$V_C$			11	V
	$I_{PP} = 2.5\text{A}, T_P = 8/20\mu\text{s}$ (Note 1)				14	
Junction capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_J$		0.2	0.3	pF

Notes: 1. Stress pulse: 8/20μs current waveform according to IEC 61000-4-5

## Rating and Characteristic Curves (CPDWL5V0SPC-HF)

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

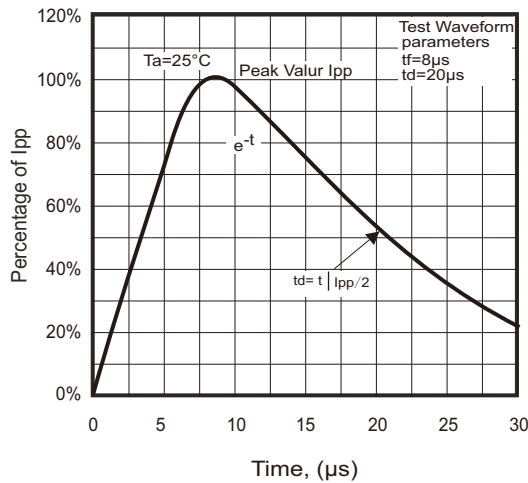


Fig.2 - Power Rating Derating Curve

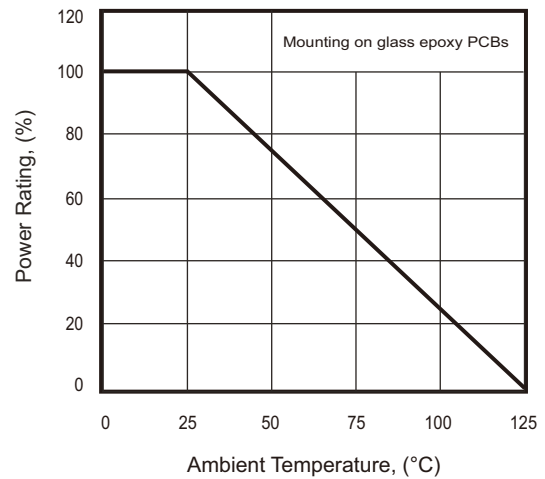


Fig.3 - Typical Capacitance Between Terminals Characteristics

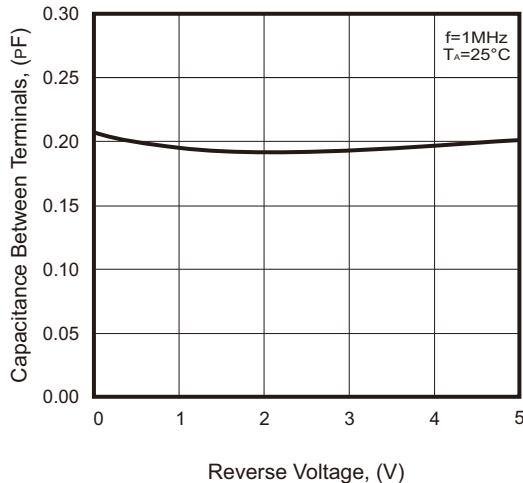
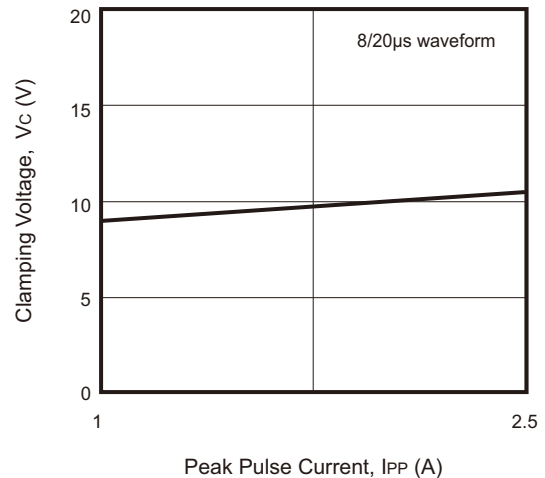


Fig.4 - Typical Clamping Voltage Vs. Peak Pulse Current



## Marking Code

Part Number	Marking Code
CPDWL5V0SPC-HF	5SP

5SP