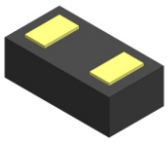
CPDWL5V0MHT-HF

Ultra small SMD package
RoHS Device
Halogen Free

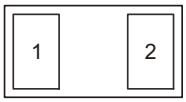


Case 01005

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
CPDWL5V0MHT-HF	01005	10,000	7 inch	D

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

Parameter	Conditions	Symbol	Value	Unit
Peak pulse power	T_P = 8/20μs	P_{PP}	117	W
Peak pulse current	T_P = 8/20μs	I_{PP}	13	A
ESD capability	IEC 61000-4-2(air) IEC 61000-4-2(contact)	ESD	±30	kV
Operating temperature range		T_j	-40 to +125	°C
Storage temperature range		T_{STG}	-55 to +150	°C

Electrical Characteristics (at T_A=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} = 5A, T_P = 8/20μs	V_C		5.0	6.5	V
	I_{PP} = 13A, T_P = 8/20μs			7.0	9.0	
Junction capacitance	V_R = 0V, f = 1MHz	C_J		14		pF

Typical Rating and Characteristic Curves (CPDWL5V0MHT-HF)

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

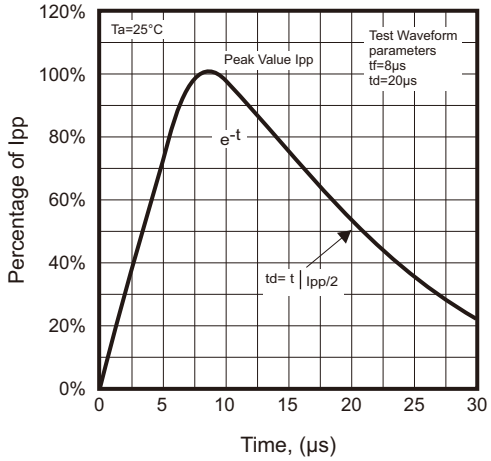


Fig.2 - Power Rating Derating Curve

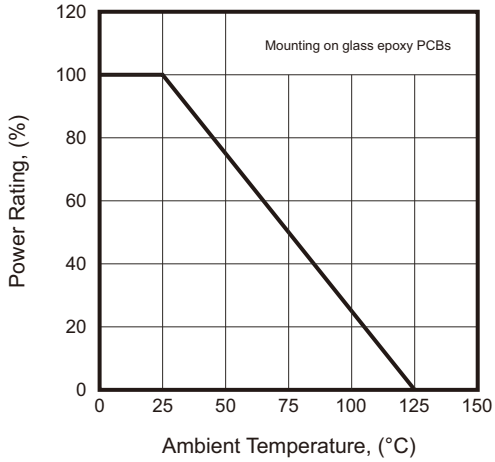


Fig.3 - Typical Clamping Voltage vs. Peak Pulse Current

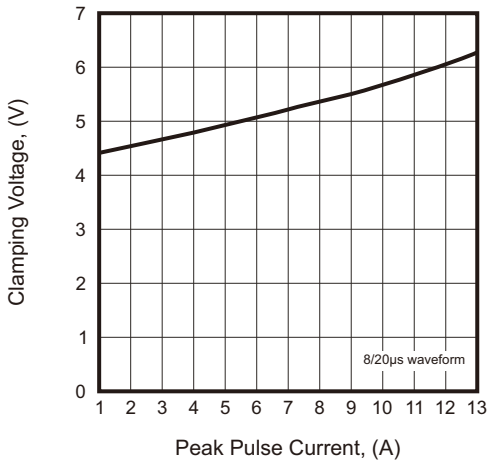
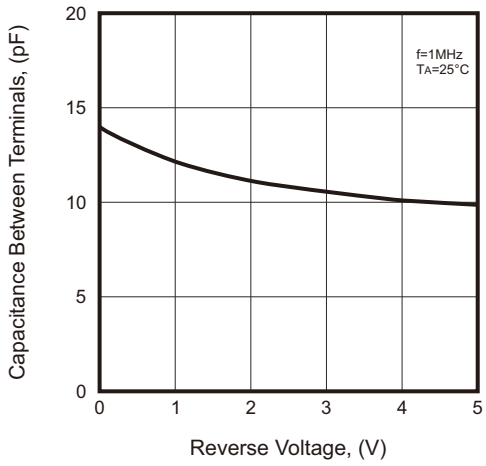
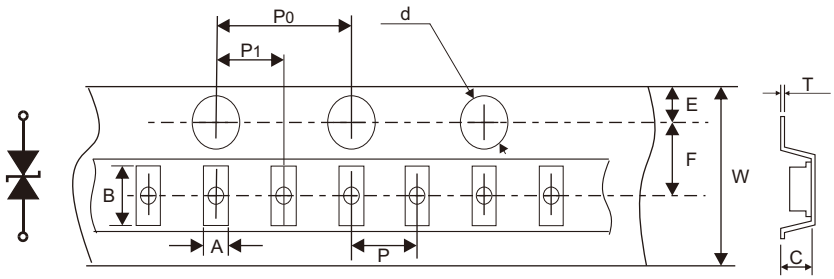


Fig.4 - Typical Capacitance Between Terminals Characteristics

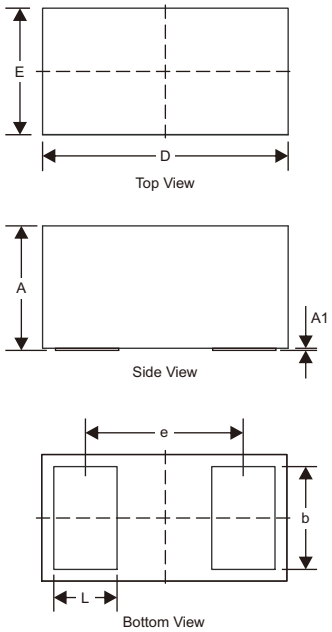


Taping Specification



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

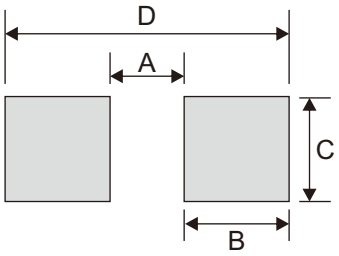


WL, 0.42x0.22, 0.26P

Case 01005

Symbol	Millimeters		
	Min	Nom	Max
A	0.15	0.17	0.20
A1	-	-	0.01
b	0.13	0.16	0.17
D	0.40	0.42	0.44
E	0.20	0.22	0.24
e	-	0.26	-
L	0.07	0.10	0.11

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