

0201 Flip Chip ESD Protection Diode

Features:

- Ultra small single ESD diode in Flip Chip format for direct board attach in 0201 case size
- ESD protection to over 30kV contact discharge per IEC-61000 International Standards
- AC signal as high as +/-8V
- Can handle multiple ESD strikes
- Unique solder pad design for maximum mechanical stability
- RoHS compliant parts available

Applications:

- MP3 Players
- Digital Cameras and camcorders
- LCD Backlight
- Mobile Handsets
- PDA
- LED modules
- Digital TV and Set-top Boxes
- Other Portable Electronic Components

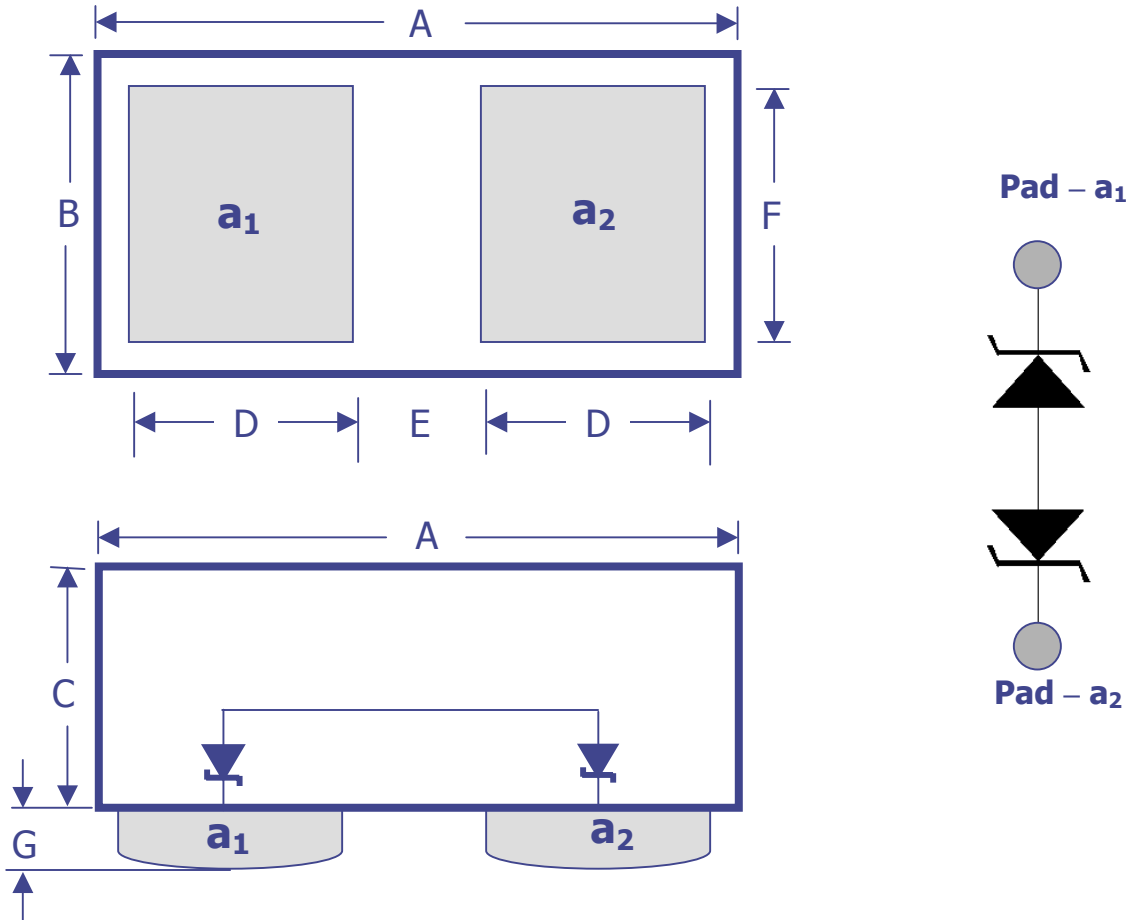
Product Description:

The OnChip ESD0201 is an ultra small ESD protection Diode specifically designed for portable electronics. It provides a high level of protection for components that may be subjected to electrostatic discharge (ESD). The back-to-back configuration provides symmetrical ESD protection in cases where nodes with AC signals are present. This device is designed and characterized to safely dissipate ESD strikes that are as high as 30kV when tested per IEC-61000 specifications. The chip consists of back-to-back diodes that are across solder pads a₁ and a₂. The typical input capacitance of the diode is 17.5pF. The device is RoHS compliant.

Electrical Specifications	Min.	Typ.	Max.	Unit
Leakage current at V=4V, 25°C	-	0.1	1	uA
Signal Clamp Voltage at 25°C @ 10mA	8	10	12	V
ESD Voltage "Contact" Discharge per IEC61000-4-2 Standards	± 30	-	-	kV
Clamping voltage during ESD discharge per IEC61000-4-2 at +/-30kV	-	+/-10	-	V
Input Capacitance	15	17.5	20	pF
Temperature Range:				
Operating	-40	-	150	°C
Storage	-65		150	

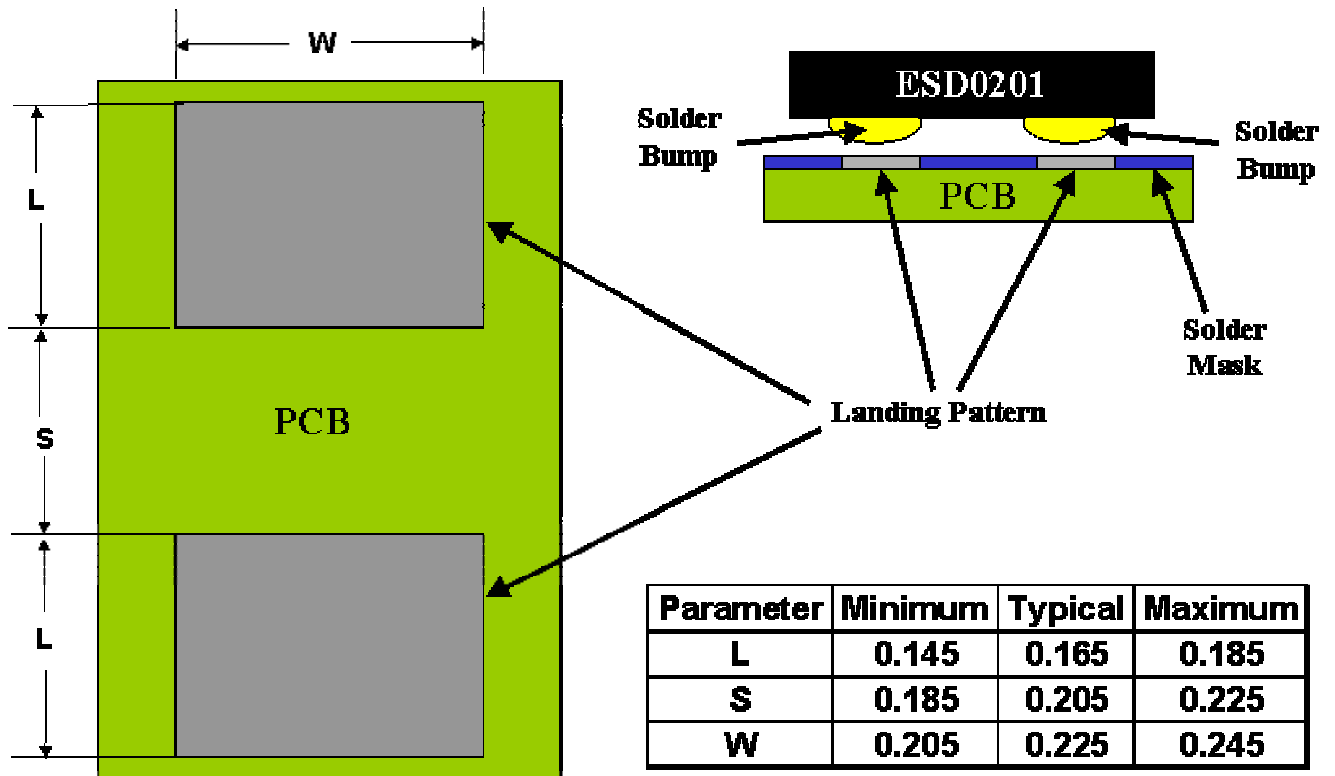
Full Ordering Part Number	
Solder Pad Material	OnChip P/N
Sn63/Pb37 Eutectic	ESD0201-01F
Sn/Ag4/Cu0.5 (RoHS Compliant)	ESD0201-01FR
5um electroless Ni/Au bumps (RoHS Compliant)	ESD0201-01FR-Au

Device Dimensions:



Dim.	Typical Values		
	in mils	in mm	in micron
A	23.6	0.60	600
B	11.8	0.30	300
C	9.8	0.25	250
D	7.9	0.20	200
E	6.3	0.16	160
F	10.2	0.26	260
G	3.1	0.08	80

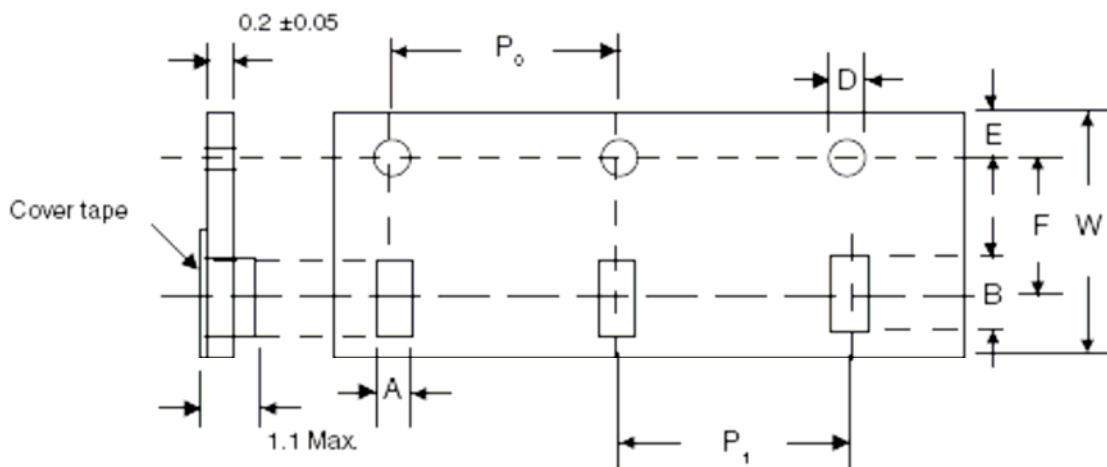
PCB Landing Pattern:



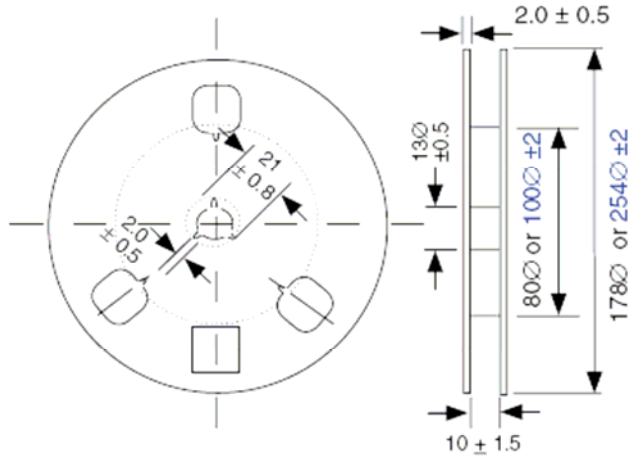
TAPE&REEL

Paper Tape Dimensions:

EIA Size	A	B	D	E	F	P ₀	P ₁	P ₂	P ₃	W
0201	0.41 ± 0.1	0.71 ± 0.1	1.5 ± 0.1	1.75 ± 0.1	3.5 ± 0.05	4.0 ± 0.1	2.0 ± 0.1	N/A	2.0 ± 0.1	8.0 ± 0.2



Reel Specifications:



1. Leader tape : Approximately 250 m/ m (160mm for 0201 case size) leader shall be provided at each end of the tape.

2. Accumulative tolerance of feeding hole and chip pocket shall not exceed 0.2mm over 10 pitches.