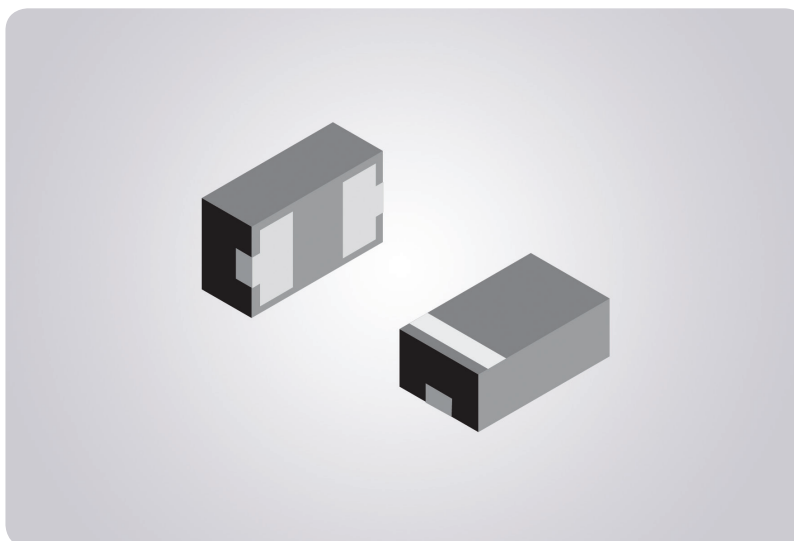




## BiSy ESD Diode Offers Extremely Low Capacitance of 0.3 pF in Ultra Compact LLP 1006 Package



### KEY BENEFITS

- Very low load capacitance:  $C_D = 0.3 \text{ pF}$
- Bidirectional symmetrical
- Ultra compact LLP1006-2M package
- Low package height  $< 0.4 \text{ mm}$

### APPLICATIONS

- Antenna and BUS port protection from transient voltage signals in portable electronics

### RESOURCES

- Datasheet: VBUS05L1-DD1 - [www.vishay.com/ppg?81188](http://www.vishay.com/ppg?81188)
- For technical questions contact [ESDProtection@vishay.com](mailto:ESDProtection@vishay.com)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



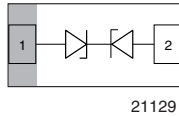
RoHS  
COMPLIANT

HALOGEN  
FREE

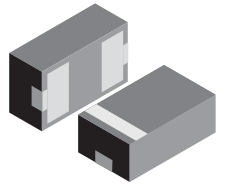
GREEN  
(5-2008)

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## BiSy ESD Diode Offers Extremely Low Capacitance of 0.3 pF in Ultra Compact LLP 1006 Package



21129



20855

### MARKING (example only)



21121

Bar = pin 1 marking

X = date code

Y = type code (see table below)

### DESIGN SUPPORT TOOLS

[click logo to get started](#)

### FEATURES

- Ultra compact LLP1006-2M package
- Low package height < 0.4 mm
- 1-line ESD protection
- Working range  $\pm 5.5$  V
- Low leakage current  $I_R < 0.1$   $\mu$ A
- Very low load capacitance  $C_D = 0.3$  pF
- ESD immunity acc. IEC 61000-4-2  $\pm 15$  kV contact discharge  $\pm 16$  kV air discharge
- Soldering can be checked by standard vision inspection; no X-ray necessary
- Pin plating NiPdAu (e4) no whisker growth
- e4 - precious metal (e.g. Ag, Au, NiPd, NiPdAu) (no Sn)
- PATENT(S): [www.vishay.com/patents](http://www.vishay.com/patents)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
 COMPLIANT  
 HALOGEN  
**FREE**  
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 (5-2008)

### ORDERING INFORMATION

DEVICE NAME	ORDERING CODE	TAPED UNITS PER REEL (8 mm TAPE ON 7" REEL)	MINIMUM ORDER QUANTITY
VBUS05L1-DD1	VBUS05L1-DD1-G-08	8000	8000

### PACKAGE DATA

DEVICE NAME	PACKAGE NAME	TYPE CODE	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
VBUS05L1-DD1	LLP1006-2M	R	0.72 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	Peak temperature max. 260 °C

### ABSOLUTE MAXIMUM RATINGS VBUS05L1-DD1

PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT
Peak pulse current	Acc. IEC 61000-4-5; $t_p = 8/20$ $\mu$ s; single shot	$I_{PPM}$	2	A
Peak pulse power	Pin 1 to pin 2, acc. IEC 61000-4-5; $t_p = 8/20$ $\mu$ s; single shot	$P_{PP}$	34	W
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	$V_{ESD}$	$\pm 15$	kV
	Air discharge acc. IEC 61000-4-2; 10 pulses		$\pm 16$	kV
Operating temperature	Junction temperature	$T_J$	-40 to +125	°C
Storage temperature		$T_{STG}$	-40 to +150	°C

Revision: 04-Jan-2019

**PATENT(S):** [www.vishay.com/patents](http://www.vishay.com/patents)

This Vishay product is protected by one or more United States and international patents.

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