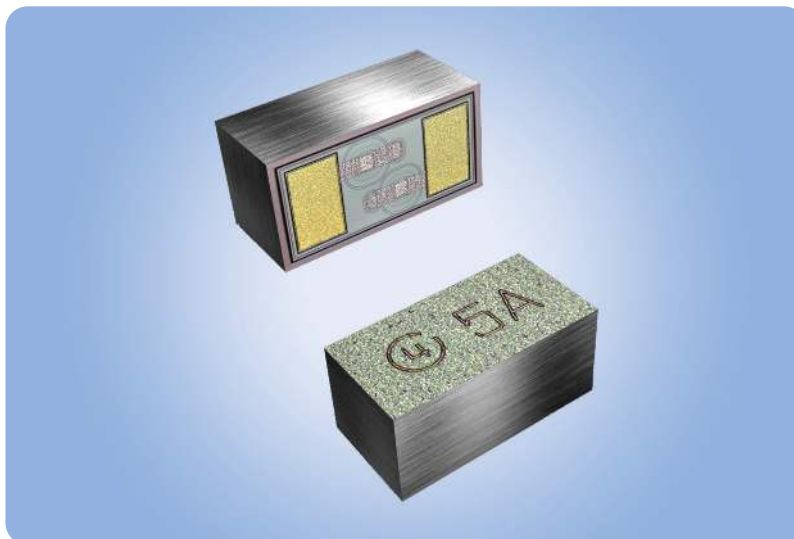




## Bidirectional Symmetrical ESD Protection Diode in CLP0603 Package With $\pm 10$ V Working Range



### KEY BENEFITS

- Ultra compact CLP0603 package
- Low package height < 0.3 mm
- Single-line bidirectional ESD protection
- Working range:  $\pm 10$  V
- Low leakage current < 0.1  $\mu$ A
- Low load capacitance  $C_D = 7.7$  pF (typical)
- ESD protection per IEC 61000-4-2
  - $\pm 24$  kV contact discharge
  - $\pm 24$  kV air discharge

### APPLICATIONS

- ESD protection of high speed interfaces in smartphones, digital cameras, gaming systems, and automotive entertainment systems

### RESOURCES

- Datasheet: VCUT10A1-SD0 - [www.vishay.com/ppg?85937](http://www.vishay.com/ppg?85937)
- 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)



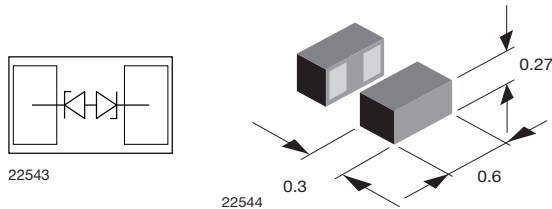
RoHS  
COMPLIANT

HALOGEN  
FREE

GREEN  
(5-2008)

A WORLD OF  
SOLUTIONS™

## Bidirectional Symmetrical (BiSy) Single Line ESD-Protection Diode in Silicon Package



### MARKING (example only)



1 = year code  
 Open circle = month code and pin 1  
 XY = type code

### DESIGN SUPPORT TOOLS AVAILABLE



### FEATURES

- Ultra compact CLP0603-2L package
- Low package height < 0.3 mm
- 1-line ESD-protection
- Working range  $\pm 10$  V
- Low leakage current < 0.1  $\mu$ A
- Low load capacitance  $C_D = 7.7$  pF (typ.)
- ESD-protection acc. IEC 61000-4-2  
 $\pm 24$  kV contact discharge  
 $\pm 24$  kV air discharge
- Lead plating: Au (e4)
- Lead material: Ni
- Topside coating
- e4 - precious metal (e.g. Ag, Au, NiPd, NiPdAu) (no Sn)
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



ORDERING INFORMATION				
PART NUMBER (EXAMPLE)	ENVIRONMENTAL AND QUALITY CODE		PACKAGING CODE	ORDERING CODE (EXAMPLE)
	RoHS-COMPLIANT + LEAD (Pb)-FREE TERMINATIONS	GOLD PLATED	15K PER 7" REEL (8 mm TAPE) 15K/BOX = MOQ	
	GREEN			
VCUT10A1-SD0-	G	4	-08	VCUT10A1-SD0-G4-08

PACKAGE DATA				
DEVICE NAME	PACKAGE NAME	TYPE CODE	WEIGHT	SOLDERING CONDITIONS
VCUT10A1-SD0	CLP0603-2L	10	0.12 mg	Peak temperature max. 260 °C Reflow soldering according JEDEC® STD-020

ABSOLUTE MAXIMUM RATINGS				
PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT
Peak pulse current	acc. IEC 61000-4-5, 8/20 $\mu$ s/single shot	$I_{PPM}$	4	A
Peak pulse power	Pin 1 to pin 2 acc. IEC 61000-4-5; $t_p = 8/20$ $\mu$ s; single shot	$P_{PP}$	72	W
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses	$V_{ESD}$	$\pm 24$	kV
	Air discharge acc. IEC 61000-4-2; 10 pulses		$\pm 24$	
Operating temperature	Junction temperature	$T_J$	-55 to +150	°C
Storage temperature		$T_{stg}$	-55 to +150	°C

Revision: 17-May-2019