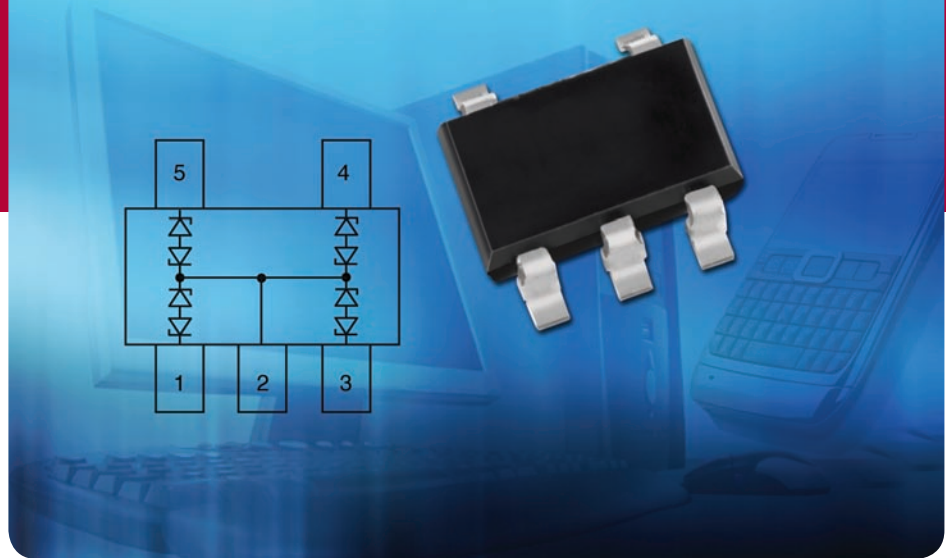




# ESD PROTECTION DIODE ARRAY

VCUT05A4-05S

## 4-Line ESD Protection



### ESD Protection Diode Array in SOT23-5L Package

#### KEY BENEFITS

- Capacitance  $C_D = 16 \text{ pF}$
- 4-line USB ESD protection with 5-V working range
- Easier handling in production thanks to widely used SOT23-5L package
- Environmentally friendly “green” molding compound

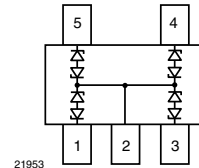
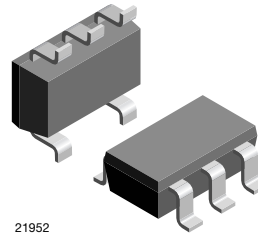
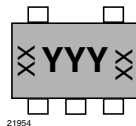
#### APPLICATIONS

- ESD protection for data line applications

## 4-Line Bidirectional Symmetrical (BiSy) ESD-Protection Diode in SOT-23-5L Package

**Features**

- SOT-23-5L package
- 4-line ESD-protection
- Working range  $\pm 5.5$  V
- Low leakage current  $< 0.1 \mu\text{A}$
- Low load capacitance  $C_D = 16$  pF
- ESD-protection acc. IEC 61000-4-2
  - $\pm 20$  kV contact discharge
  - $\pm 30$  kV air discharge
- AEC-Q101 qualified
- Pin plating tin (e3)
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC


**Marking (example only)**


YYY = Type code (see table below)  
XX = Date code

**Ordering Information**

Device name	Ordering code	Taped units per reel (8 mm tape on 7" reel)	Minimum order quantity
VCUT05A4-05S	VCUT05A4-05S-G-08	3000	15 000

**Package Data**

Device name	Package name	Type code	Weight	Molding compound flammability rating	Moisture sensitivity level	Soldering conditions
VCUT05A4-05S	SOT-23-5L	5A4	15.5 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	260 °C/10 s at terminals

**Absolute Maximum Ratings**

Parameter	Test conditions	Symbol	Value	Unit
Peak pulse current	Acc. IEC 61000-4-5, 8/20 $\mu\text{s}$ /single shot	$I_{PPM}$	3.5	A
Peak pulse power	Pin 1 to pin 2, acc. IEC 61000-4-5, 8/20 $\mu\text{s}$ /single shot	$P_{PP}$	56	W
ESD immunity	Contact discharge acc. IEC61000-4-2; 10 pulses	$V_{ESD}$	$\pm 20$	kV
	Air discharge acc. IEC61000-4-2; 10 pulses		$\pm 30$	
Operating temperature	Junction temperature	$T_j$	- 40 to + 125	°C
Storage temperature		$T_{STG}$	- 55 to + 150	°C

Revision 09-Mar-10

**DISCLAIMER** All product specifications and data are subject to change without notice. Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product. Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications. Product names and markings noted herein may be trademarks of their respective owners.

Build **Vishay** into your **Design**