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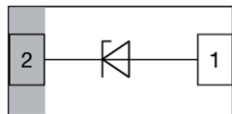
New ESD Protection Diodes in Ultra Compact DFN1006 Package for General Commercial and Automotive Applications

Offered in the ultra compact DFN1006 two-pin package with wettable flanks, Vishay's new VESDxxC1-HD1 series ESD protection diodes are single-line unidirectional devices for general commercial and automotive applications.

Connected between the signal or data line and the ground, VESDxxC1-HD1 diodes offer a high isolation within the specified working range. Due to the short leads and small package size of the DFN1006 package, the devices' line inductance is very low, allowing fast transients like an ESD strike to be clamped with minimal over- or undershoots.

Both devices are also available in automotive AEC-Q101 qualified versions.

Unidirectional Device



Automotive

Device Specification Table

No.	Device Name	Package	Type	V _{RWM}	Capacitance V _R = 0 V (Typ.)	ESD-Immunity (Contact Discharge)
1	VESD01C1-HD1-G3	DFN1006-2A	Commercial	1 V	192 pF	30 kV
2	VESD01C1-HD1HG3		AEC-Q101			
3	VESD03C1-HD1-G3		Commercial	3 V	112 pF	30 kV
4	VESD03C1-HD1HG3		AEC-Q101			
5	VESD05C1-HD1-G3		Commercial	5 V	67 pF	30 kV
6	VESD05C1-HD1HG3		AEC-Q101			
7	VESD08C1-HD1-G3		Commercial	8 V	47 pF	30 kV
8	VESD08C1-HD1HG3		AEC-Q101			
9	VESD12C1-HD1-G3		Commercial	12 V	33 pF	30 kV
10	VESD12C1-HD1HG3		AEC-Q101			



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11	VESD16C1-HD1-G3		Commercial	16 V	27 pF	30 kV
12	VESD16C1-HD1HG3		AEC-Q101			
13	VESD26C1-HD1-G3		Commercial	26 V	17.5 pF	20 kV
14	VESD26C1-HD1HG3		AEC-Q101			
15	VESD33C1-HD1-G3		Commercial	33 V	15 pF	15 kV
16	VESD33C1-HD1HG3		AEC-Q101			

Features

- Ultra compact DFN1006-2A package
- Low package height of < 0.5 mm
- 1-line unidirectional ESD protection
- Working range from 1 V to 33 V
- ESD immunity in accordance with IEC 61000-4-2
 - ± 15 kV to ± 30 kV contact discharge
 - ± 15 kV to ± 30 kV air discharge
- e3 - Sn, tin-plated exposed side wall of lead frame
- AEC-Q101 qualified versions available
- AOI capable (AOI = automated optical inspection)

Applications

- General ESD protection for commercial and automotive applications

Samples

Available at Vishay Sample Service Center (VSSC)

Contact Information

The Americas

Vishay Semiconductors
150 Motor Parkway,
Suite 119
Hauppauge, NY 11788 USA
Phone: +1 631 300 3816
Fax: +1 631 300 3843
Diodes-Americas@vishay.com

Europe

Vishay Semiconductors
Theresienstrasse 2
D-74072 Heilbronn, Germany
Phone: +49 7131 7498 656 (or 715)
Fax: +49 7131 67 2938
Diodes-Europe@vishay.com

Asia / Pacific

Vishay Semiconductors
15D, Sun Tong Infoport Plaza
55 Huai Hai West Road
Shanghai, China
Phone: +86 138 1787 2112
Fax: +86 21 5258 7979
Diodes-Asia@vishay.com