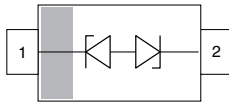
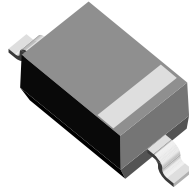


Low Capacitance, Single-Line ESD-Protection Diode in SOD-323



20503



22756 SOD-323

MARKING (example only)


XYZ = type code (see table below)
bar = pin 1

LINKS TO ADDITIONAL RESOURCES

FEATURES

- For LIN-Bus applications
- Small SOD-323 package
- Working range: -16 V; +26.5 V
- Low leakage current $I_R < 0.05 \mu\text{A}$
- Low load capacitance $C_D < 19 \text{ pF}$
- ESD-protection acc. IEC 61000-4-2:
 - ± 30 kV contact discharge
 - ± 30 kV air discharge
- ESD capability according to AEC-Q101:
 - human body model: class H3B: > 8 kV
- e3 - pins plated with tin (Sn)
- 1-line ESD-protection
- AEC-Q101 qualified available
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

| ORDERING INFORMATION | | | | | | | |
|--------------------------|--------------------------------|--|---------------|------------------|--|--|----------------------------|
| PART NUMBER (EXAMPLE) | ENVIRONMENTAL AND QUALITY CODE | | | REVISION CODE | PACKAGING CODE | | ORDERING CODE (EXAMPLE) |
| | AEC-Q101 QUALIFIED (H) | RoHS-COMPLIANT + LEAD (Pb)-FREE TERMINATIONS | TIN PLATED | | 3K PER 7" REEL (8 mm TAPE) 15K/BOX = MOQ | 10K PER 13" REEL (8 mm TAPE) 10K/BOX = MOQ | |
| VLIN1626-02G | - | E | 3 | - | 08 | | VLIN1626-02G-E3-08 |
| VLIN1626-02G | H | E | 3 | A | 08 | | VLIN1626-02GHE3A08 |
| VLIN1626-02G | - | E | 3 | - | | 18 | VLIN1626-02G-E3-18 |
| VLIN1626-02G | H | E | 3 | A | | 18 | VLIN1626-02GHE3A18 |

| PACKAGE DATA | | | | | | |
|--------------|--------------|-----------|--------|---|--------------------------------------|---------------------------------|
| DEVICE NAME | PACKAGE NAME | TYPE CODE | WEIGHT | MOLDING COMPOUND FLAMMABILITY RATING | MOISTURE SENSITIVITY LEVEL | SOLDERING CONDITIONS |
| VLIN1626-02G | SOD-323 | 6A1 | 4 mg | UL 94 V-0 | MSL level 1 (according J-STD-020) | Peak temperature max. 260 °C |

| ABSOLUTE MAXIMUM RATINGS | | | | | |
|--------------------------|--|--|-----------|-------------|------|
| PARAMETER | TEST CONDITIONS | | SYMBOL | VALUE | UNIT |
| Peak pulse current | Pin 1 to pin 2; $T_A = 25 \text{ }^\circ\text{C}$, acc. IEC 61000-4-5; $t_p = 8/20 \mu\text{s}$; single shot | | I_{PPM} | 6 | A |
| | Pin 2 to pin 1; $T_A = 25 \text{ }^\circ\text{C}$, acc. IEC 61000-4-5; $t_p = 8/20 \mu\text{s}$; single shot | | | 4 | |
| Peak pulse power | $T_A = 25 \text{ }^\circ\text{C}$, acc. IEC 61000-4-5; $t_p = 8/20 \mu\text{s}$; single shot | | P_{PP} | 200 | W |
| ESD immunity | Contact discharge acc. IEC 61000-4-2; 10 pulses, $T_A = 25 \text{ }^\circ\text{C}$ | | V_{ESD} | ± 30 | kV |
| | Air discharge acc. IEC 61000-4-2; 10 pulses, $T_A = 25 \text{ }^\circ\text{C}$ | | | ± 30 | |
| Operating temperature | Junction temperature | | T_J | -55 to +150 | °C |
| Storage temperature | | | T_{STG} | -55 to +150 | |



| ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified) | | | | | | |
|---|--|----------------------|------|------|------|-------|
| PARAMETER | TEST CONDITIONS / REMARKS | SYMBOL | MIN. | TYP. | MAX. | UNIT |
| Protection paths | Number of lines which can be protected | N _{channel} | - | - | 1 | lines |
| Reverse stand-off voltage | Pin 1 to pin 2; max. reverse working voltage | V _{RWM} | - | - | 16 | V |
| | Pin 2 to pin 1; max. reverse working voltage | | - | - | 26.5 | |
| Reverse voltage | Pin 1 to pin 2; at I _R = 0.05 μA | V _R | 16 | - | - | V |
| | Pin 2 to pin 1; at I _R = 0.05 μA | | 26.5 | - | - | |
| Reverse current | Pin 1 to pin 2; at V _{RWM} = 16 V | I _R | - | - | 0.05 | μA |
| | Pin 2 to pin 1; at V _{RWM} = 26.5 V | | - | - | 0.05 | |
| Reverse breakdown voltage | Pin 1 to pin 2; at I _R = 1 mA | V _{BR} | 17.1 | 18.7 | 20.3 | V |
| | Pin 2 to pin 1; at I _R = 1 mA | | 28 | 30 | 32 | |
| Reverse clamping voltage | Pin 1 to pin 2; at I _{PP} = 1 A; t _p = 8/20 μs | V _C | - | 22 | 25 | V |
| | Pin 1 to pin 2; at I _{PP} = 6 A; t _p = 8/20 μs | | - | 29 | 33 | |
| | Pin 2 to pin 1; at I _{PP} = 1 A; t _p = 8/20 μs | | - | 32 | 40 | |
| | Pin 2 to pin 1; at I _{PP} = 4 A; t _p = 8/20 μs | | - | 39 | 50 | |
| Capacitance | At V _R = 0 V, f = 1 MHz | C _D | - | 15.5 | 19 | pF |

TYPICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

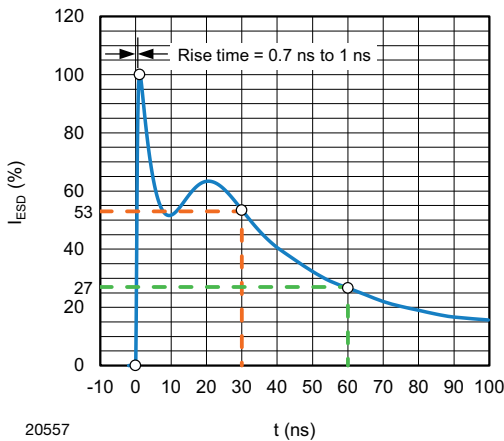


Fig. 1 - ESD Discharge Current Wave Form acc. IEC 61000-4-2 (330 Ω / 150 pF)

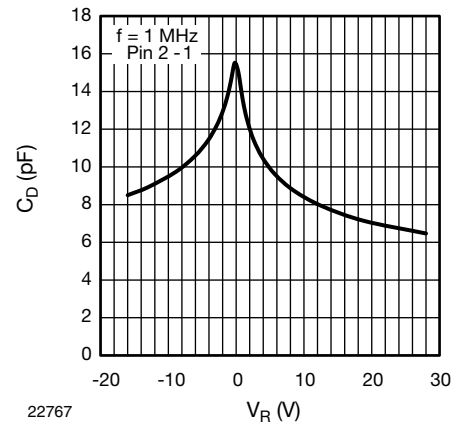


Fig. 3 - Typical Capacitance C_D vs. Reverse Voltage V_R

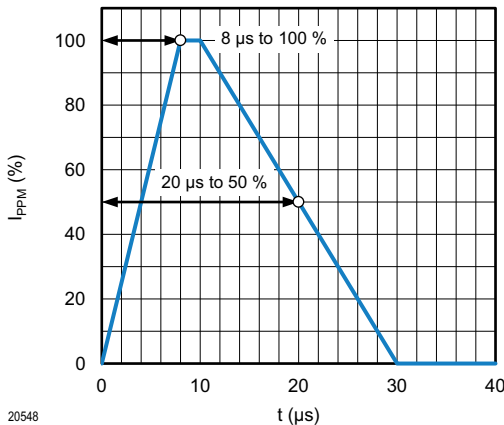


Fig. 2 - 8/20 μs Peak Pulse Current Wave Form acc. IEC 61000-4-5

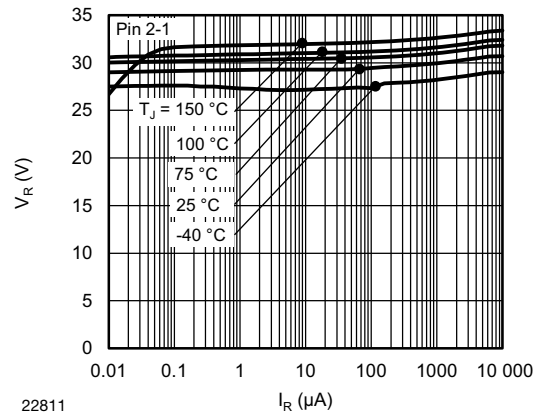
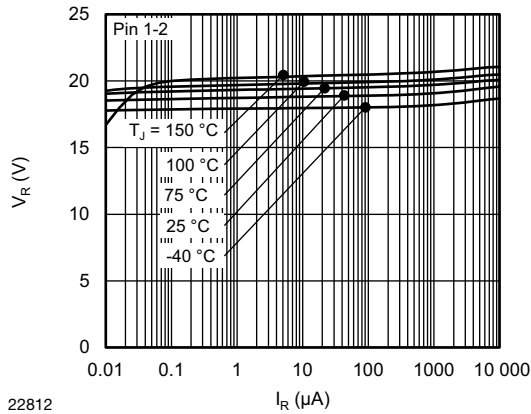
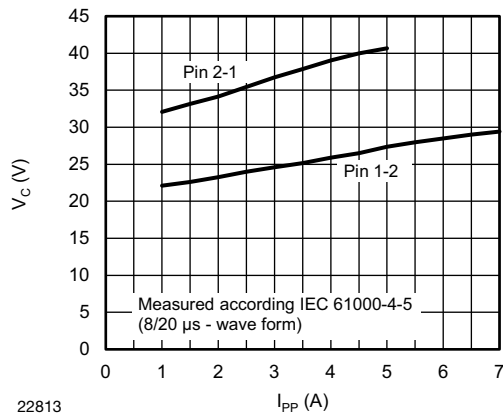


Fig. 4 - Typical Reverse Voltage V_R vs. Reverse Current I_R



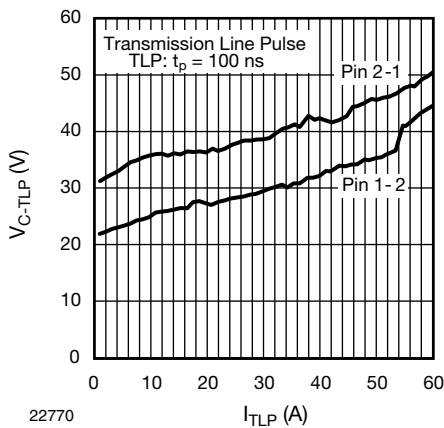
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Fig. 5 - Typical Reverse Voltage V_R vs. Reverse Current I_R



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Fig. 6 - Typical Peak Clamping Voltage V_C vs. Peak Pulse Current I_{PP}

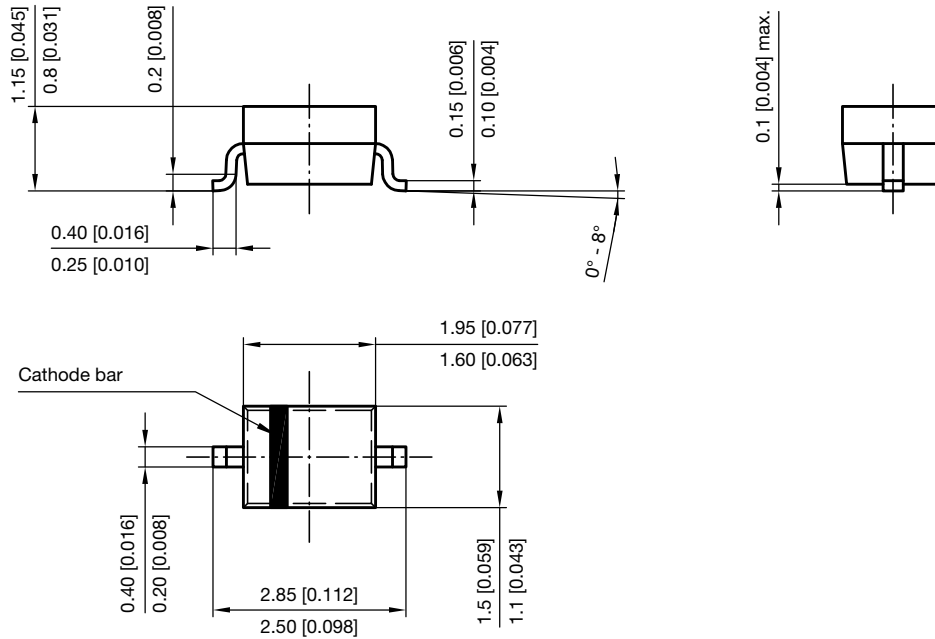


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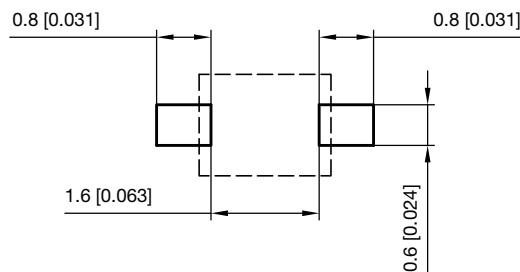
Fig. 7 - Typical Clamping Voltage V_{C-TLP} vs. Pulse Current I_{TLP}



PACKAGE DIMENSIONS in millimeters (inches) **SOD-323**



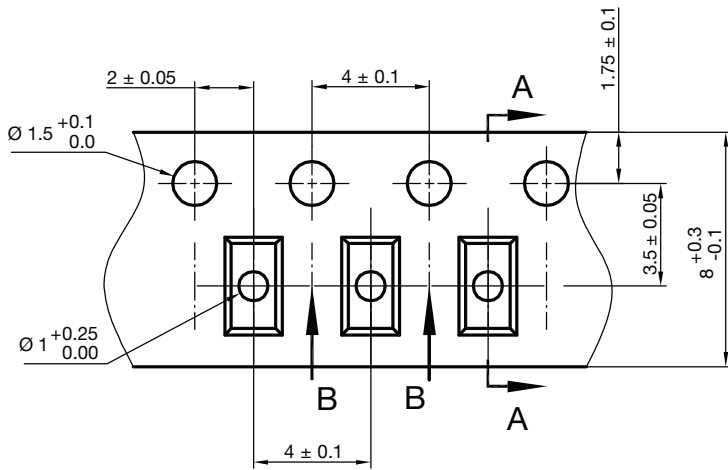
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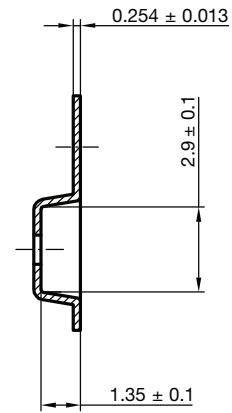
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 Rev. 6 - Date: 23.Sept.2016
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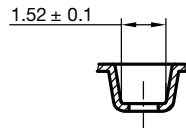
CARRIER TAPE SOD-323



A-A Section

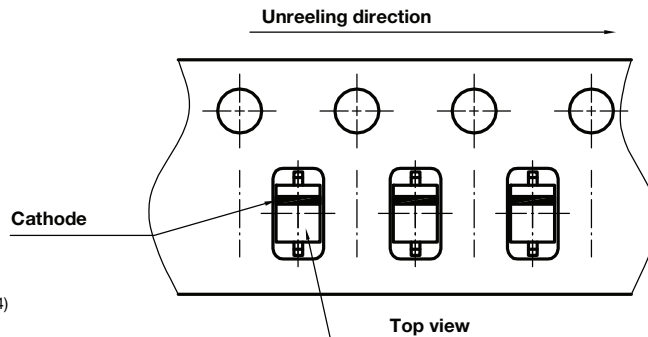


B-B Section



Document no.: S8-V-3717.07-002 (4)
Created - Date: 09. Feb. 2010
22824

ORIENTATION IN CARRIER TAPE SOD-323



Document no.: S8-V-3717.07-003 (4)
Created - Date: 09. Feb. 2010
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