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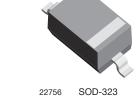




Vishay Semiconductors

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

2



MARKING (example only)

20503



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

FEATURES

- For LIN-Bus applications
- Small SOD-323 package
- 1-line ESD-protection
- Working range: ± 26.5 V
- Low leakage current $I_R < 0.05 \; \mu A$
- Low load capacitance C_D < 16 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)
- AEC-Q101 qualified available
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

ORDERING INFORMATION								
PART NUMBER (EXAMPLE)	ENVIR	ONMENTAL AN	ND QUALITY CO	DDE	PACKAG	ORDERING CODE (EXAMPLE)		
	AEC-Q101 QUALIFIED	RoHS-COMPLIANT + LEAD (Pb)-FREE TERMINATIONS		TIN PLATED	3K PER 7" REEL (8 mm TAPE)			10K PER 13" REEL (8 mm TAPE)
	QUALIFIED	STANDARD	GREEN	FLATED	15K/BOX = MOQ	10K/BOX = MOQ		
VLIN2626-02G	-	E	-	3	-08	-	VLIN2626-02G-E3-08	
VLIN2626-02G	Н	E	-	3	-08	-	VLIN2626-02GHE3-08	
VLIN2626-02G	-	E	-	3	-	-18	VLIN2626-02G-E3-18	
VLIN2626-02G	Н	E	-	3	-	-18	VLIN2626-02GHE3-18	

PACKAGE DATA							
DEVICE NAME	PACKAGE NAME	TYPE CODE	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS	
VLIN2626-02G	SOD-323	262	4.30 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	T_A = 25 °C; acc. IEC 61000-4-5; t_p = 8/20 $\mu s;$ single shot	I _{PPM}	4	А			
Peak pulse power	T_A = 25 °C; acc. IEC 61000-4-5; t_p = 8/20 $\mu s;$ single shot	P _{PP}	200	W			
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses; $T_A = 25 \text{ °C}$	N/	± 30	kV			
	Air discharge acc. IEC 61000-4-2; 10 pulses; $T_A = 25 \text{ °C}$	V _{ESD}	± 30	kV			
Operating temperature	Junction temperature	TJ	-55 to +150	°C			
Storage temperature		T _{STG}	-55 to +150	°C			





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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	Max. reverse working voltage	V _{RWM}	-	-	26.5	V		
Reverse voltage	At I _R = 0.05 μA	V _R	26.5	-	-	V		
Reverse current	At V _{RWM} = 26.5 V	I _R	-	-	0.05	μA		
Reverse breakdown voltage	At I _R = 1 mA	V_{BR}	28	30	32	V		
Reverse clamping voltage	At I _{PP} 1 A; t _p = 8/20 μs	V _C	-	32	40	V		
	At $I_{PP} = I_{PPM} = 4$ A; $t_p = 8/20 \ \mu s$	V _C	-	39	50	V		
Capacitance At $V_R = 0 V$, f = 1 MHz		CD	-	13.5	16	pF		

TYPICAL CHARACTERISTICS (Tamb = 25 °C, unless otherwise specified)

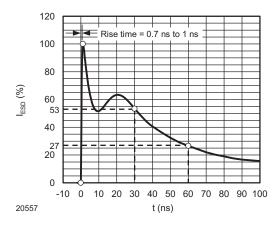


Fig. 1 - ESD Discharge Current Wave Form acc. IEC 61000-4-2 (330 Ω / 150 pF)

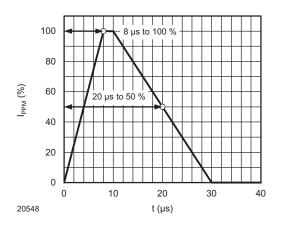


Fig. 2 - 8/20 µs Peak Pulse Current Wave Form acc. IEC 61000-4-5

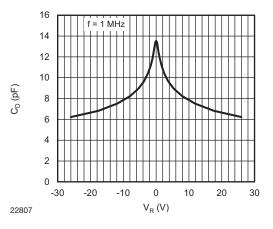


Fig. 3 - Typical Capacitance C_D vs. Reverse Voltage V_R

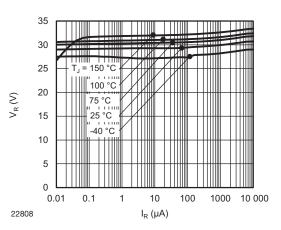


Fig. 4 - Typical Reverse Voltage V_R vs. Reverse Current I_R

2

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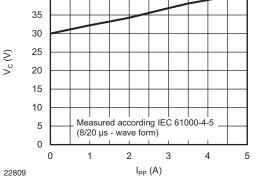


Fig. 5 - Typical Peak Clamping Voltage V_C vs. Peak Pulse Current I_{PP}

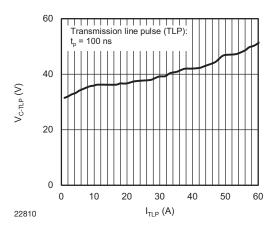
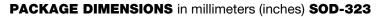
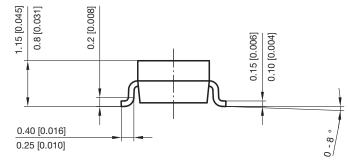
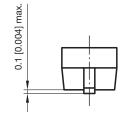
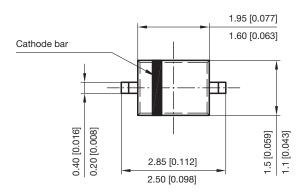


Fig. 6 - Typical Clamping Voltage V_{C-TLP} vs. Pulse Current I_{TLP}

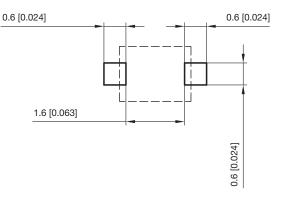








Foot print recommendation:



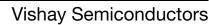
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Rev. 1.1, 23-Feb-16

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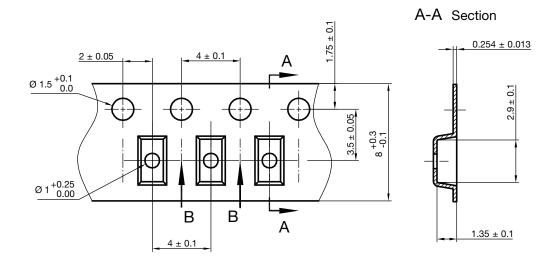
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CARRIER TAPE SOD-323

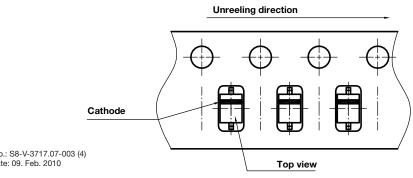


B-B Section



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ORIENTATION IN CARRIER TAPE SOD-323



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