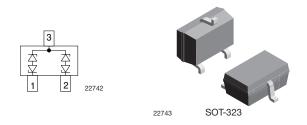
VCAN26A2-03G

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Bidirectional Symmetrical (BiSy) Low Capacitance, Dual-Line ESD-Protection Diode in SOT-323



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MARKING (example only)



ABC = type code (see table below) WW = date code working week VY = date code year

FEATURES

- For CAN and FLEX-Bus applications
- Small SOT-323 package
- 2-line ESD-protection
- Working range ± 26.5 V
- Low leakage current $I_R < 0.05 \ \mu A$
- Low load capacitance C_D < 15 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)	ENVIRONMENTAL AND QUALITY CODE				PACKAG	ING CODE		
	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)	ORDERING CODE (EXAMPLE)	
	QUALIFIED	STANDARD	GREEN	FLATED	15K/BOX = MOQ	10K/BOX = MOQ		
VCAN26A2-03G	-	E		3	-08		VCAN26A2-03G-E3-08	
VCAN26A2-03G	Н	E		3	-08		VCAN26A2-03GHE3-08	
VCAN26A2-03G	-	E		3		-18	VCAN26A2-03G-E3-18	
VCAN26A2-03G	Н	E		3		-18	VCAN26A2-03GHE3-18	

PACKAGE DATA							
DEVICE NAME	PACKAGE NAME	TYPE CODE	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS	
VCAN26A2-03G	SOT-323	6A2	5.65 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 µs; single shot	I _{PPM}	3	А		
Peak pulse power	T_A = 25 °C; pin 1 or 2 to pin 3; acc. IEC 61000-4-5; t_p = 8/20 μs ; single shot	P _{PP}	150	W		
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses, $T_A = 25 \text{ °C}$	\/	± 30	kV		
	Air discharge acc. IEC 61000-4-2; 10 pulses, T_A = 25 °C	V _{ESD}	± 30	kV		
Operating temperature	Junction temperature	TJ	-55 to +150	°C		
Storage temperature		T _{STG}	-55 to +150	°C		



COMPLIANT

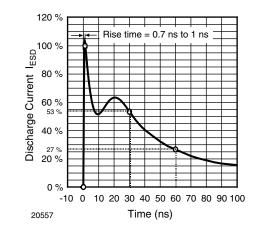


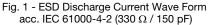
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ELECTRICAL CHARACTERISTICS (pin 1 to 3, 3 to 1, 2 to 3, or 3 to 2) (T _{amb} = 25 °C, unless otherwise specified)								
PARAMETER	TEST CONDITIONS/REMARKS	SYMBOL	MIN.	TYP.	MAX.	UNIT		
Protection paths	Number of lines which can be protected	N _{channel}	-	-	2	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	-	33	40	V		
	At I _{PP} = I _{PPM} = 3 A; t _p = 8/20 μs	V _C	-	40	50	V		
Capacitance	At $V_R = 0 V$, $f = 1 MHz$	CD	-	10	15	pF		
	Diode capacitance matching at V _R = 0 V, T _J = -40 °C to 125 °C / C _{D13} vs. C _{D23}	C _D	-	-	2	pF		

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





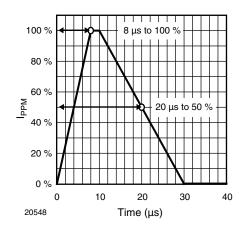


Fig. 2 - 8/20 µs Peak Pulse Current Wave Form acc. IEC 61000-4-5

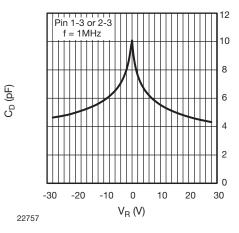


Fig. 3 - Typical Capacitance C_D vs. Reverse Voltage V_B

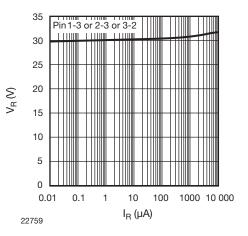
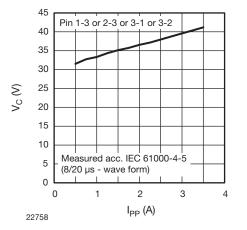


Fig. 4 - Typical Reverse Voltage V_{R} vs. Reverse Current I_{R}

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

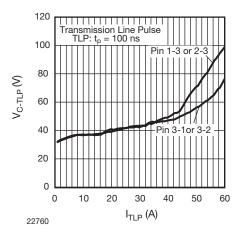
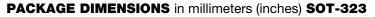
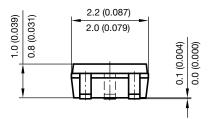
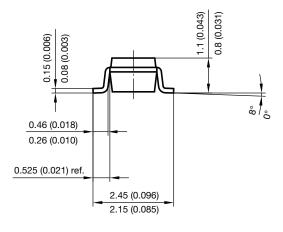


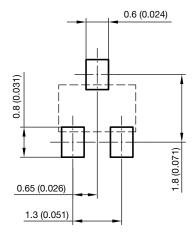
Fig. 6 - Typical Clamping Voltage V_{C-TLP} vs. Pulse Current I_{TLP}







foot print recommendation:



0.4 (0.016) 0.2 (0.008) 0.65 (0.026) typ 1.4 (0.055) 1.2 (0.047)

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Rev. 1.2, 23-Feb-16

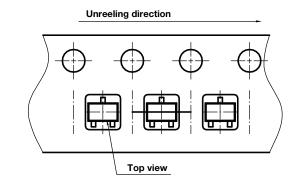
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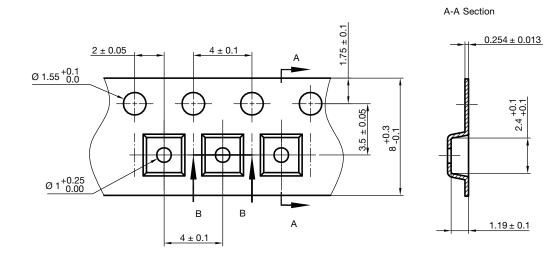


ORIENTATION IN CARRIER TAPE SOT-323



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CARRIER TAPE SOT-323



B-B Section



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