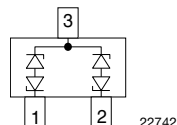




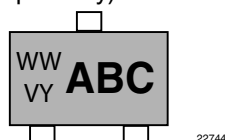
Bidirectional Symmetrical (BiSy) Low Capacitance, Dual-Line ESD Protection Diode in SOT-323



22743

SOT-323

MARKING (example only)



ABC = type code (see table below)

WW = date code working week

VY = date code year

LINKS TO ADDITIONAL RESOURCES



FEATURES

- For CAN-BUS application with flexible data rate (CAN FD)
- Small SOT-323 package
- 2-line ESD protection
- Working range ± 26.5 V
- Low leakage current $I_R < 0.05$ μ A
- Low load capacitance $C_D = 3$ pF (typ. at 5 V)
- ESD immunity acc. IEC 61000-4-2 ± 25 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 www.vishay.com/doc?99912

RoHS
COMPLIANT

ORDERING INFORMATION

PART NUMBER (EXAMPLE)	ENVIRONMENTAL AND QUALITY CODE				PACKAGING CODE		ORDERING CODE (EXAMPLE)
	AEC-Q101 QUALIFIED	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	
		STANDARD	GREEN				
VCAN26B2-03G	-	E		3	-08		VCAN26B2-03G-E3-08
VCAN26B2-03G	H	E		3	-08		VCAN26B2-03GHE3-08
VCAN26B2-03G	-	E		3		-18	VCAN26B2-03G-E3-18
VCAN26B2-03G	H	E		3		-18	VCAN26B2-03GHE3-18

PACKAGE DATA

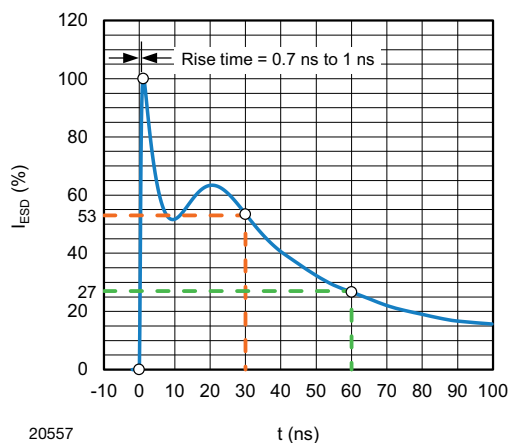
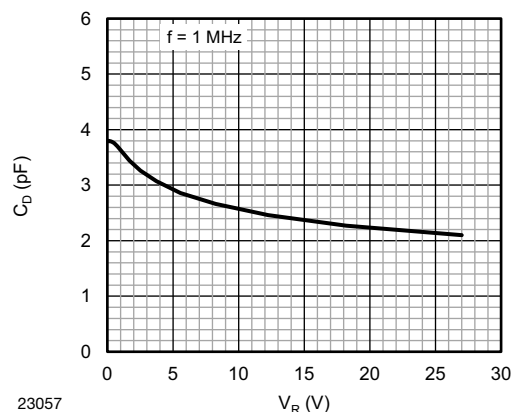
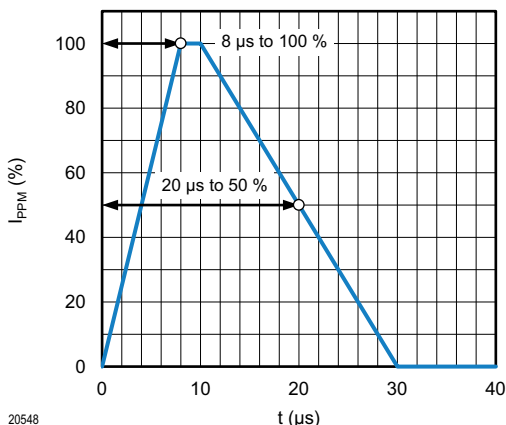
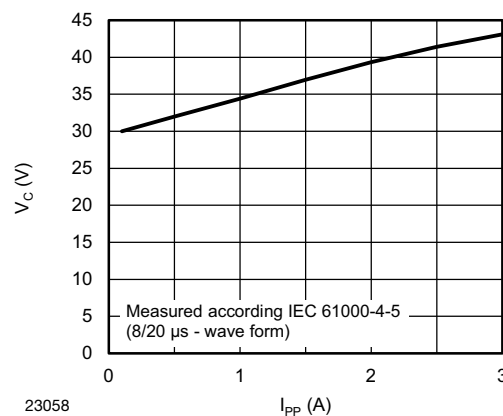
DEVICE NAME	PACKAGE NAME	TYPE CODE	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
VCAN26B2-03G	SOT-323	BSY	5.65 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	Peak temperature max. 260 °C

ABSOLUTE MAXIMUM RATINGS

PARAMETER	TEST CONDITIONS	SYMBOL	VALUE	UNIT
Peak pulse current	$T_A = 25$ °C, acc. IEC 61000-4-5; $t_p = 8/20$ μ s; single shot	I_{PPM}	2	A
Peak pulse power	$T_A = 25$ °C; pin 1 or 2 to pin 3; acc. IEC 61000-4-5; $t_p = 8/20$ μ s; single shot	P_{PP}	100	W
ESD immunity	Contact discharge acc. IEC 61000-4-2; 10 pulses, $T_A = 25$ °C	V_{ESD}	± 25	kV
	Air discharge acc. IEC 61000-4-2; 10 pulses, $T_A = 25$ °C		± 30	kV
	Contact discharge acc. ISO10605 330 pF / 330 Ω ; 10 pulses, $T_A = 25$ °C		± 15	kV
Operating temperature	Junction temperature	T_J	-55 to +150	°C
Storage temperature		T_{STG}	-55 to +150	°C

**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
	At V _{RWM} = 26.5 V; T _J = 125 °C		-	-	0.1	
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	-	34	41	V
	At I _{PP} = I _{PPM} = 2 A; t _p = 8/20 µs		-	40	50	
Capacitance	At V _R = 0 V, f = 1 MHz	C _D	-	4	5	pF
	At V _R = 5 V, f = 1 MHz		-	3	4	
	Diode capacitance matching at V _R = 5 V, C _{D13} vs. C _{D23}	dC _D	-	-	0.3	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_RFig. 2 - 8/20 µs Peak Pulse Current Wave Form
acc. IEC 61000-4-5Fig. 4 - Typical Peak Clamping Voltage V_C vs.
Peak Pulse Current I_{PP}

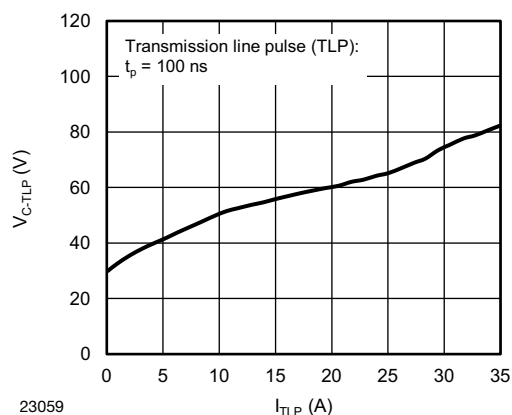
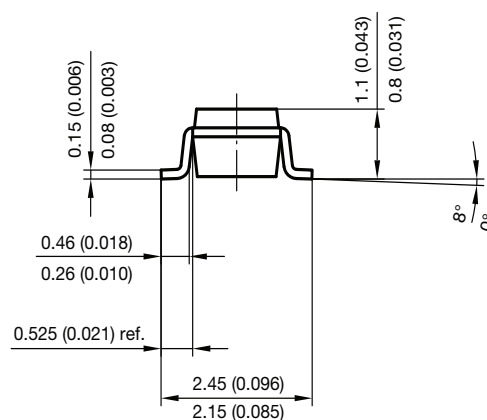
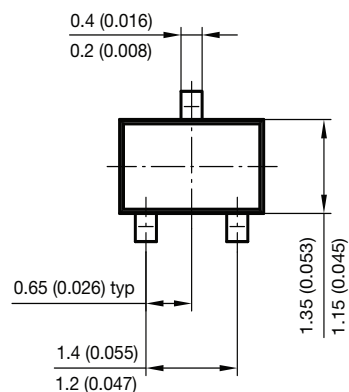
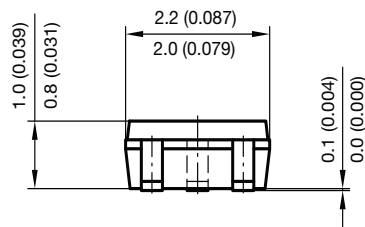
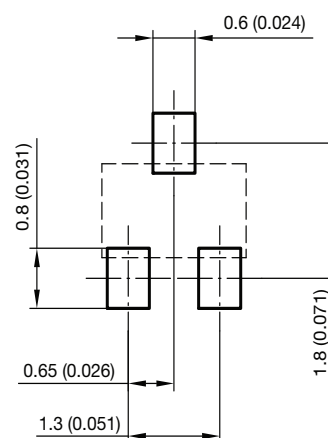


Fig. 5 - Typical Clamping Voltage V_{C-TLP} vs. Pulse Current I_{TLP}

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



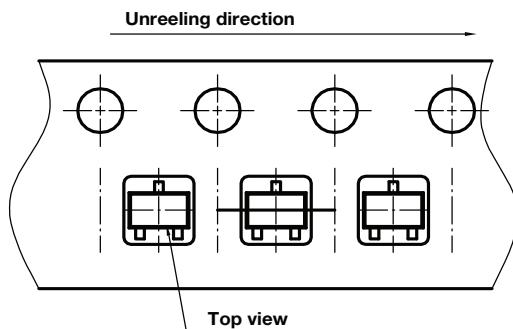
foot print recommendation:



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Rev. 1 - Date: 06. April 2010
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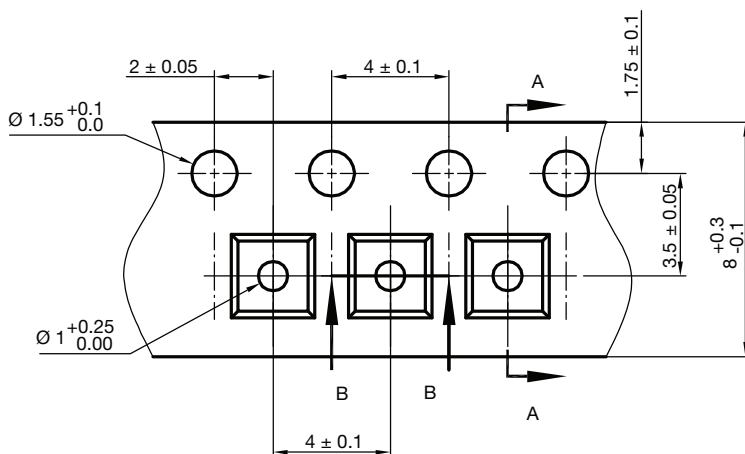


ORIENTATION IN CARRIER TAPE SOT-323

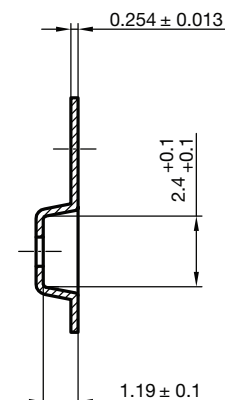


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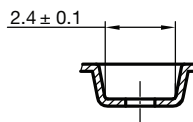
CARRIER TAPE SOT-323



A-A Section



B-B Section



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