

UNISONIC TECHNOLOGIES CO., LTD

UESD5V0L1B

Preliminary

ESD PROTECTION DEVICE

DESCRIPTION

The UTC **UESD5V0L1B** is bidirectional ElectroStatic Discharge (ESD). protection diode in leadless ultra small Surface-Mounted Device (SMD) plastic package designed to protect one signal line from the damage caused by ESD and other transients.

FEATURES

- * Bidirectional protection of one line
- * Reverse stand-off voltage: V_{RWM}=5V
- * Surge robustness: IPPM=5.0A for 8/20µs pulse
- * Ultra low clamping voltage: V_{CL}<12V max. at I_{PPM}=5.0A

SYMBOL

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К • ◀ ▶ • К
1 2
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ORDERING INFORMATION

	SOD-323			
	2 1			
X1DFN1006-2	X3DFN0603-2			

Ordering Number		Deekere	Pin Assignment		Deeking	
Lead Free	Halogen Free	Раскаде	1	2	Packing	
UESD5V0L1BL-CB2-R	UESD5V0L1BG-CB2-R	SOD-323	К	К	Tape Reel	
UESD5V0L1BL-KAA-R	UESD5V0L1BG-KAA-R	X1DFN1006-2	К	К	Tape Reel	
UESD5V0L1BL-KAQ-R	UESD5V0L1BG-KAQ-R	X3DFN0603-2	К	К	Tape Reel	

Note: Pin Assignment: K: Cathode

UESD5V0L1BG-CB2-R (1)Packing Type (2)Package Type (3)Green Package	 (1) R: Tape Reel (2) CB2: SOT-323, KAA: X1DFN1006-2 KAQ: X3DFN0603-2 (3) G: Halogen Free and Lead Free, L: Lead Free
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MARKING

SOD-323	X1DFN1006-2 / X3DFN0603-2		
	501		

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■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT	
ESD Discharge		Air Discharge	V _{ESD}	±25	kV
	IEC61000-4-2	Contact Discharge		±25	kV
Peak Pulse Current		t _p =8/20µs	IPP	7.5	А
Peak Pulse Power	IEC61000-4-5		Рек	50	W
Operating Junction Temperature		TJ	-55 ~ +150	°C	
Operating Temperature		T _{OPR}	-55 ~ +125	°C	
Storage Temperature		T _{STG}	-55 ~ +150	°C	

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Stand-Off Voltage	VRWM				5.0	V
Reverse Breakdown Voltage	VBR	I _R =1mA	5.6	6.5	7.6	V
Reverse Current	IR	V _R =5.0V			1.0	uA
Diode capacitance	CD	V _R =0V, f=1MHz		15.5	20	рF
Clamping Voltage (positive transient)	V _{CL}	I _{PP} =1.0A, t _P =8/20µs (Note)			8.3	V
		I _{РРМ} =5.0А, t _Р =8/20µs (Note)			12	V

Note: Device stressed with 8/20 µs exponential decay waveform according to IEC 61000-4-5.



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