



UESD24VL1U

Preliminary

TVS

ESD PROTECTION DEVICE

DESCRIPTION

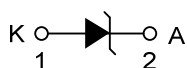
The UTC **UESD24VL1U** is ElectroStatic Discharge (ESD). protection diode in leadless ultra small Surface-Mounted Device (SMD) plastic package designed to protect one signal line from the damage caused by ESD and other transients.

FEATURES

* Reverse stand-off voltage: $V_{RWM}=12V$

* Surge robustness: $I_{PPM}=5A$ for 8/20 μs pulse

SYMBOL



ORDERING INFORMATION

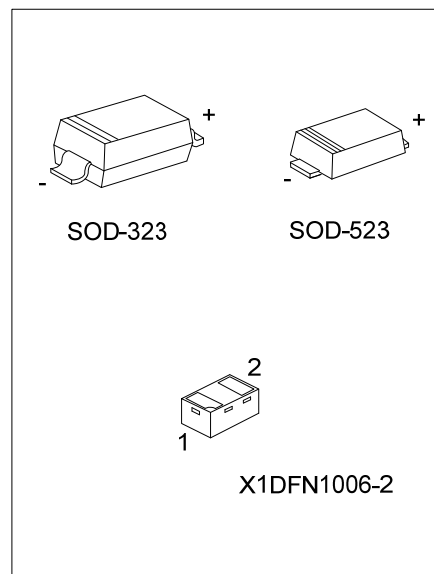
Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
UESD24VL1UL-CB2-R	UESD24VL1UG-CB2-R	SOD-323	K	A	Tape Reel
UESD24VL1UL-CC2-R	UESD24VL1UG-CC2-R	SOD-523	K	A	Tape Reel
UESD24VL1UL-KAA-R	UESD24VL1UG-KAA-R	X1DFN1006-2	K	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

<p>UESD24VL1UG-CB2-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel (2) CB2: SOT-323, CC2: SOD-523 KAA: X1DFN1006-2 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING

SOD-323 / SOD-523	X1DFN1006-2



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER			SYMBOL	RATINGS	UNIT
ESD Discharge	IEC61000-4-2	Air Discharge	V_{ESD}	± 30	kV
		Contact Discharge		± 20	kV
Peak Pulse Current	IEC61000-4-5	$t_p=8/20\mu\text{s}$	I_{PP}	3	A
Peak Pulse Power			P_{PK}	160	W
Operating Junction Temperature			T_{J}	-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 ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Stand-Off Voltage	V_{RWM}				24	V
Reverse Breakdown Voltage	V_{BR}	$I_{\text{R}}=5\text{mA}$	26.5	27	27.5	V
Forward Voltage Drop	V_{F}	$I_{\text{F}}=10\text{mA}$			1	V
Reverse Current	I_{R}	$V_{\text{R}}=24\text{V}$			1	μA
Diode capacitance	C_{d}	$V_{\text{R}}=0\text{V}$, $f=1\text{MHz}$		46	80	pF
Clamping Voltage (positive transient)	V_{CL}	$I_{\text{PPM}}=1\text{A}$, $t_p=8/20\mu\text{s}$ (Note)			36	V
		$I_{\text{PPM}}=3\text{A}$, $t_p=8/20\mu\text{s}$ (Note)			70	V

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

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