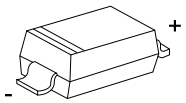
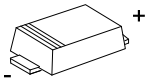
UESD24VL1U

Preliminary ***TVS***

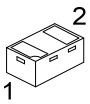
ESD PROTECTION DEVICE



SOD-323



SOD-523



X1DFN1006-2

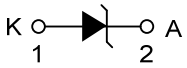
■ DESCRIPTION

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 8/20μs pulse

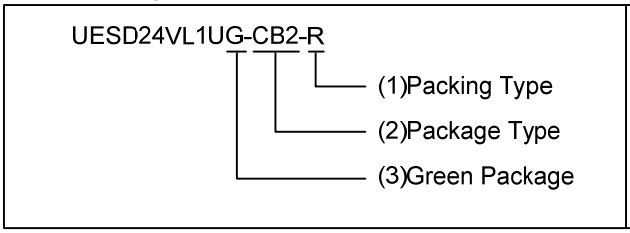
■ SYMBOL



■ 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



(1) R: Tape Reel
(2) CB2: SOT-323, CC2: SOD-523
KAA: X1DFN1006-2
(3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING

SOD-323 / SOD-523	X1DFN1006-2
	

■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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=8/20μs	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°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_R=5mA	26.5	27	27.5	V
Forward Voltage Drop	V_F	I_F=10mA			1	V
Reverse Current	I_R	V_R=24V			1	uA
Diode capacitance	C_d	V_R=0V, f=1MHz		46	80	pF
Clamping Voltage (positive transient)	V_{CL}	I_{PPM}=1A, t_P=8/20μs (Note)			36	V
		I_{PPM}=3A, t_P=8/20μs (Note)			70	V

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