



UESD12VL2U

Preliminary

TVS

ESD PROTECTION DEVICE

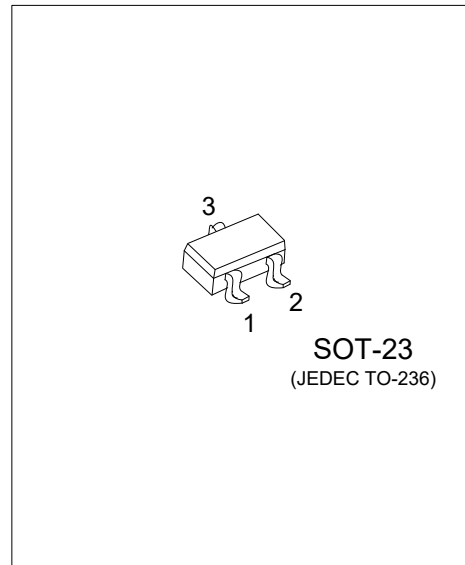
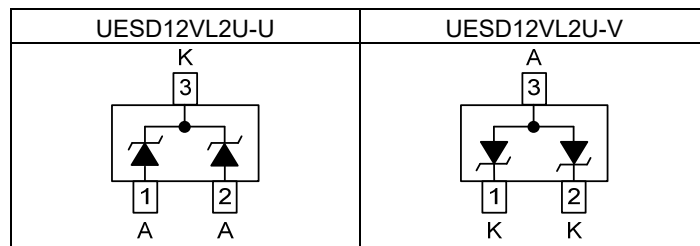
■ DESCRIPTION

The UTC **UESD12VL2U** 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: $I_{PPM}=20A$ for 8/20 μs pulse

■ SYMBOL



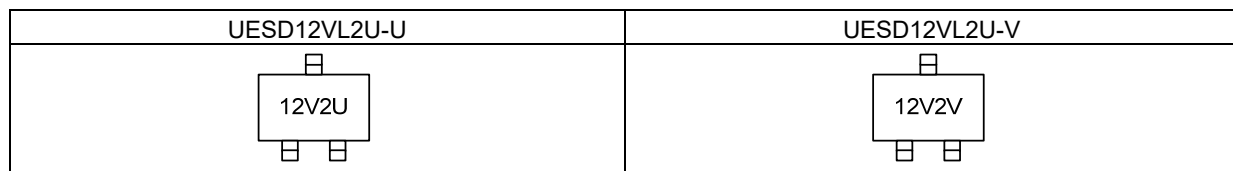
■ ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UESD12VL2UL-AE3-U-R	UESD12VL2UG-AE3-U-R	SOT-23	A	A	K	Tape Reel
UESD12VL2UL-AE3-V-R	UESD12VL2UG-AE3-V-R	SOT-23	K	K	A	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>UESD12VL2UG-AE3-x-R</p> <ul style="list-style-type: none"> (1) Packing Type (2) Pin Assignment (3) Package Type (4) Green Package 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) refer to Pin Assignment (3) AE3: SOT-23 (4) G: Halogen Free and Lead Free, L: Lead Free
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■ MARKING



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

PARAMETER		SYMBOL	RATINGS	UNIT	
ESD Discharge	IEC61000-4-2	Air Discharge	± 30	kV	
		Contact Discharge	± 30	kV	
Peak Pulse Current	IEC61000-4-5	$t_p=8/20\mu\text{s}$	I_{PP}	10	A
Peak Pulse Power			P_{PK}	210	W
Operating Junction Temperature		T_J	-55 ~ +150	$^\circ\text{C}$	
Operating Temperature		T_{OPR}	-55 ~ +125	$^\circ\text{C}$	
Storage Temperature		T_{STG}	-55 ~ +150	$^\circ\text{C}$	

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}				12.2	V
Reverse Breakdown Voltage	V_{BR}	$I_R=1\text{mA}$	14			V
Forward Voltage Drop	V_F	$I_F=100\text{mA}$			1.3	V
Reverse Current	I_R	$V_R=12\text{V}$			1	μA
Diode capacitance	C_d	$V_R=0\text{V}$, $f=1\text{MHz}$		57	100	pF
Clamping Voltage (positive transient)	V_{CL}	$I_{PP}=1.9\text{A}$, $t_p=8/20\mu\text{s}$ (Note)			21.2	V
		$I_{PPM}=5\text{A}$, $t_p=8/20\mu\text{s}$ (Note)			22	V

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

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