



UESD6V1N2U

Preliminary

TVS

ESD PROTECTION DEVICE

DESCRIPTION

The UTC **UESD6V1N2U** is a diode array designed to protect 1 line or 2 lines against ESD transients.

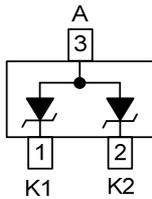
The device is ideal for applications where both reduced line capacitance and board space saving are required.

It can also be used as bidirectional suppressor by connecting only pin 1 and 2.

FEATURES

- * Unidirectional device
- * Low leakage current (IR max. < 20μA at VBR)
- * 300W peak pulse power (8/20μs)

SYMBOL



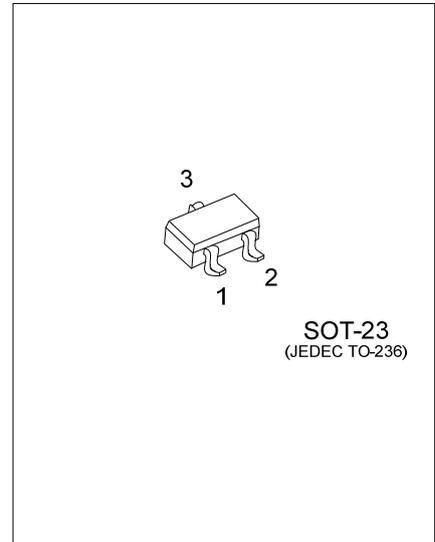
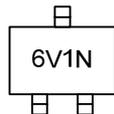
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UESD6V1N2UL-AE3-R	UESD6V1N2UG-AE3-R	SOT-23	K1	K2	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

UESD6V1N2UG-AE3-R	(1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) AE3: SOT-23 (3) 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}	18	A
Peak Pulse Power			P_{PP}	235	W
Operating Junction Temperature		T_J	-40 ~ +150	$^\circ\text{C}$	
Operating Temperature		T_{OPR}	-40 ~ +125	$^\circ\text{C}$	
Storage Temperature		T_{STG}	-65 ~ +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}				6.1	V
Reverse Breakdown Voltage	V_{BR}	$I_R=1\text{mA}$	6.1		7.2	V
Forward Voltage Drop	V_F	$I_F=200\text{mA}$			1.25	V
Reverse Current	I_R	$V_R=5.25\text{V}$			20	μA
Diode capacitance	C_d	$V_R=0\text{V}$, $f=1\text{MHz}$		105		pF
Clamping Voltage (positive transient)	V_{CL}	$I_{PPM}=15\text{A}$, $t_p=8/20\mu\text{s}$			16	V
Dynamic impedance	R_d	$I_{PPM}=15\text{A}$, $t_p=8/20\mu\text{s}$		300		m Ω

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

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