



## UESD5V0N2U

Preliminary

TVS

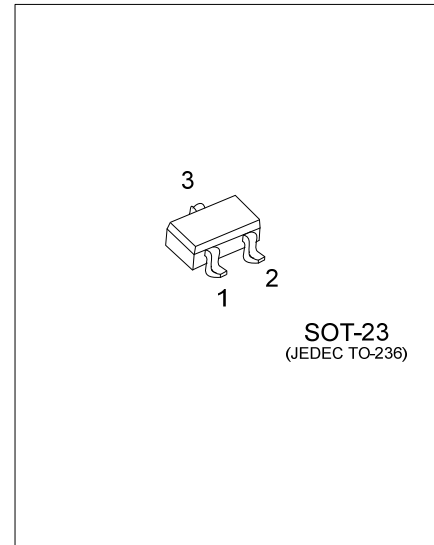
### ESD PROTECTION DIODE

#### DESCRIPTION

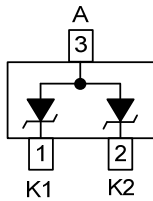
The UTC **UESD5V0N2U** is bidirectional ElectroStatic Discharge (ESD). protection diode in leadless ultra small Surface-Mounted Device (SMD) plastic package designed to protect one signal line from the damage caused by ESD and other transients.

#### FEATURES

- \* Bidirectional protection of one line
- \* Reverse stand-off voltage:  $V_{RWM}=5V$
- \* Surge robustness:  $I_{PPM}=24A$  for 8/20 $\mu s$  pulse
- \* Ultra low clamping voltage:  $V_{CL}=8.3V$  max. at  $I_{PPM}=5.0A$



#### SYMBOL



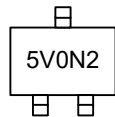
#### ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UESD5V0N2UL-AE3-R	UESD5V0N2UG-AE3-R	SOT-23	K1	K2	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

<p>UESD5V0N2UG-AE3-R</p> <p>(1)Packing Type (2)Package Type (3)Green Package</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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#### MARKING



■ ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°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 <sub>p</sub> =8/20μs	I <sub>PP</sub>	21	A
Peak Pulse Power			P <sub>PK</sub>	250	W
Operating Junction Temperature		T <sub>J</sub>	-55 ~ +150	°C	
Storage Temperature		T <sub>STG</sub>	-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<sub>A</sub>=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Reverse Stand-Off Voltage	V <sub>RWM</sub>				5	V
Reverse Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA	6			V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5.0V			2	μA
Diode capacitance	C <sub>D</sub>	V <sub>R</sub> =0V, f=1MHz		115		pF
Clamping Voltage (positive transient)	V <sub>CL</sub>	I <sub>PP</sub> =5.0A, t <sub>p</sub> =8/20μs (Note)			8.3	V
		I <sub>PPM</sub> =21A, t <sub>p</sub> =8/20μs (Note)			11.9	V

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

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