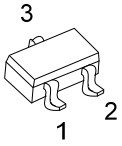
ESD PROTECTION DIODE



SOT-23
(JEDEC TO-236)

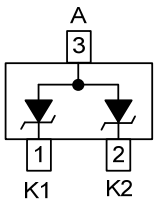
■ DESCRIPTION

The UTC **UESD5V0V2U** 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

* Low capacitance C_D=0.8pF
* Uni-directional, symmertrical working voltage up to : V_{RWM}=5V
* Low reverse current : < 100nA typical (V_R=5V)
* IEC61000-4-2(ESD) : Air mode 30kV / Contact mode 30kV

■ SYMBOL



■ ORDERING INFORMATION

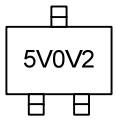
Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
UESD5V0V2UL-AE3-R	UESD5V0V2UG-AE3-R	SOT-23	K1	K2	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

UESD5V0V2UG-AE3-R

(1)Packing Type	(1) R: Tape Reel
(2)Package Type	(2) AE3: SOT-23
(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ 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		±30	kV
Peak Pulse Current	IEC61000-4-5	t_p=8/20μs	I_{PP}	4.5	A
Peak Pulse Power			P_{PK}	60	W
Operating Junction Temperature			T_J	-55 ~ +150	°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}				5.0	V
Reverse Breakdown Voltage	V_{BR}	I_R=1mA	6.0	7.5	9.0	V
Forward Voltage Drop	V_F	I_F=10mA			1.4	V
Reverse Current	I_R	V_R=5.0V			100	nA
Diode Capacitance	C_D	V_R=0V, f=1MHz		0.8		pF
Clamping Voltage (positive transient)	V_{CL}	I_{PP}=1.0A, t_P=8/20μs (Note)			12	V
		I_{PPM}=4.0A, t_P=8/20μs (Note)			16	V

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