



UESD5V0N1U02

Preliminary

TVS

ESD PROTECTION DEVICE

DESCRIPTION

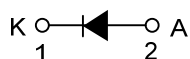
The UTC **UESD5V0N1U02** is ElectroStatic Discharge (ESD). protection diode in leadless ultra small Surface-Mounted Device (SMD) plastic package designed to protect one signal line from the damage caused by ESD and other transients.

FEATURES

* Reverse stand-off voltage: $V_{RWM}=5.0V$

* Surge robustness: $I_{PPM}=24.0A$ for 8/20 μs pulse

SYMBOL



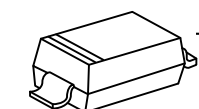
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
UESD5V0N1U02L-CB2-R	UESD5V0N1U02G-CB2-R	SOD-323	K	A	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

UESD5V0N1U02G-CB2-R	
(1)Packing Type	(1) R: Tape Reel
(2)Package Type	(2) CB2: SOD-323
(3)Green Package	(3) G: Halogen Free and Lead Free, L: Lead Free

MARKING



SOD-323

■ ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$, 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}	24	A
Peak Pulse Power			P _{PK}	216	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 ($T_A = 25^\circ\text{C}$, 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}	$I_{\text{R}} = 1\text{mA}$	5.5			V
Reverse Current	I_{R}	$V_{\text{R}} = 5.0\text{V}$			1	μA
Diode capacitance	C_d	$V_{\text{R}} = 0\text{V}$, $f = 1\text{MHz}$		210		pF
Clamping Voltage (positive transient)	V_{CL}	$I_{\text{PPM}} = 5.0\text{A}$, $t_p = 8/20\mu\text{s}$ (Note)			7	V
		$I_{\text{PPM}} = 24\text{A}$, $t_p = 8/20\mu\text{s}$ (Note)			9	V

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

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