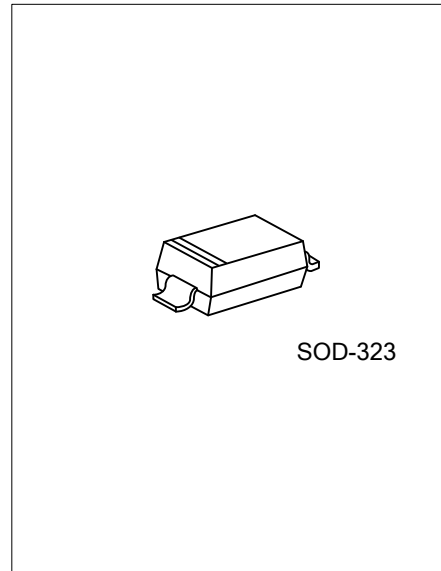




ULTRA LOW CLAMPING BI-DIRECTIONAL ESD TRANSIENT PROTECTION DIODE



DESCRIPTION

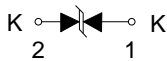
The UTC **UESD5V0X1C50** is ultra-low clamping ESD transient bidirectional protection diode, it uses UTC's advanced technology to provide customers with low leakage current and high integration, etc.

The UTC **UESD5V0X1C50** is suitable for ESD protection and high density boards.

FEATURES

- * 350 Watts peak pulse power (8/20µs)
- * Unidirectional Configuration
- * Solid state silicon-avalanche technology
- * Low clamping voltage
- * Low leakage current

SYMBOL



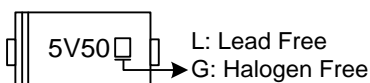
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
UESD5V0X1C50L-CB2-R	UESD5V0X1C50G-CB2-R	SOD-323	K	K	Tape Reel

Note: Pin Assignment: K: Cathode A: Anode

<p>UESD5V0X1C50G-CB2-R</p> <p>(1) Packing Type (2) Package Type (3) Green Package</p>	<p>(1) R: Tape Reel (2) CB2: SOT-323 (3) G: Halogen Free and Lead Free, L: Lead Free</p>
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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	± 15	kV	
Peak Pulse Current	IEC61000-4-5	$t_p=8/20 \mu\text{s}$	I_{PP}	20	A
Peak Pulse Power			P_{PK}	350	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}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_R=1\text{mA}$	6.0			V
Reverse Current	I_R	$V_R=5.0\text{V}$			1.0	μA
Clamping Voltage (positive transient)	V_{CL}	$I_{PP}=20\text{A}$, $t_p=8/20\mu\text{s}$, Any Channel pin to Ground			21	V
Diode capacitance	C_d	$V_R=0\text{V}$, $f=1\text{MHz}$			50	pF

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