



UESD5V0U1B-L

TVS

ESD PROTECTION DIODE

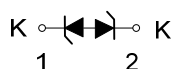
■ DESCRIPTION

The UTC **UESD5V0U1B-L** is designed to protect voltage sensitive components from ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD. Because of its small size, it is suited for use in cellular phones, MP3 players, digital cameras and many other portable applications where board space comes at a premium.

■ FEATURES

- * Low Capacitance < 0.5 pF
- * Low Clamping Voltage
- * Stand-off Voltage: 5 V
- * IEC61000-4-2(ESD) : Air mode 30kV / Contact mode 30KV

■ SYMBOL



■ ORDERING INFORMATION

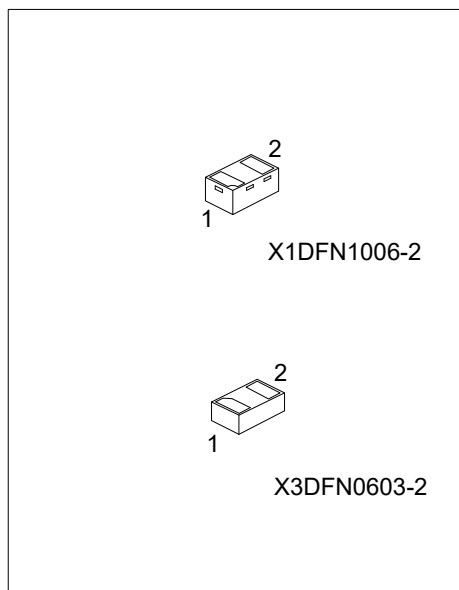
Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
UESD5V0U1BL-L-KAA-R	UESD5V0U1BG-L-KAA-R	X1DFN1006-2	K	K	Tape Reel
UESD5V0U1BL-L-KAQ-R	UESD5V0U1BG-L-KAQ-R	X3DFN0603-2	K	K	Tape Reel

Note: Pin Assignment: K: Cathode

UESD5V0U1BG-L-KAA-R	(1) Packing Type (2) Package Type (3) Version Code (4) Green Package	(1) R: Tape Reel (2) KAA: X3DFN0603-2, KAA: X1DFN1006-2 (3) Version L (4) G: Halogen Free and Lead Free, L: Lead Free
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■ MARKING

X3DFN0603-2	X1DFN1006-2



■ **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	A
Peak Pulse Power			P _{PK}	60	W
Operating Junction Temperature			T _J	-55 ~ +150	°C
Storage Temperature			T _{STG}	-55 ~ +150	°C

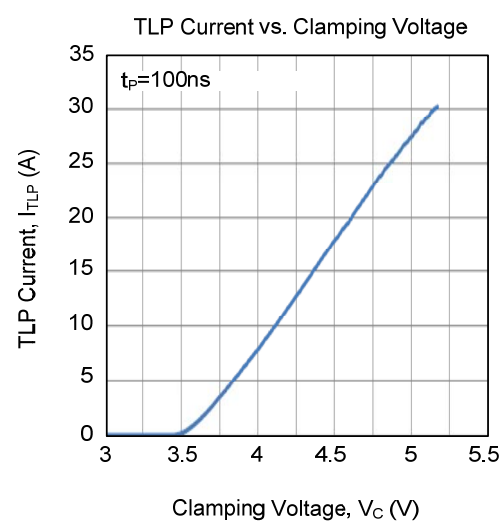
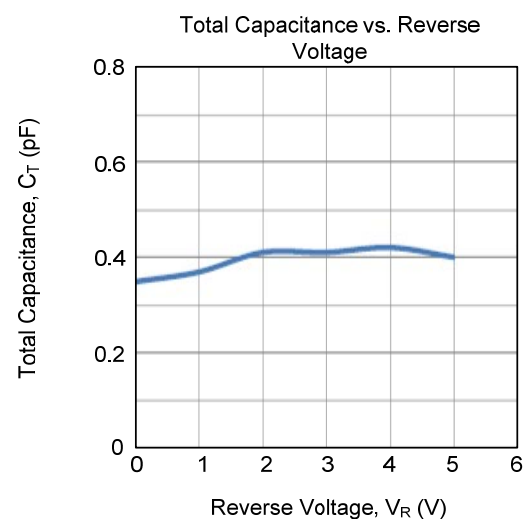
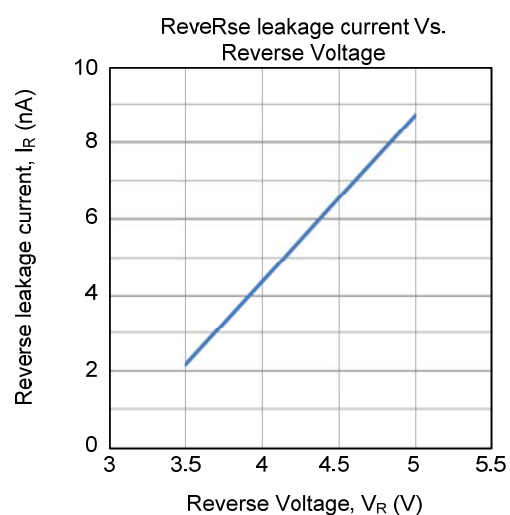
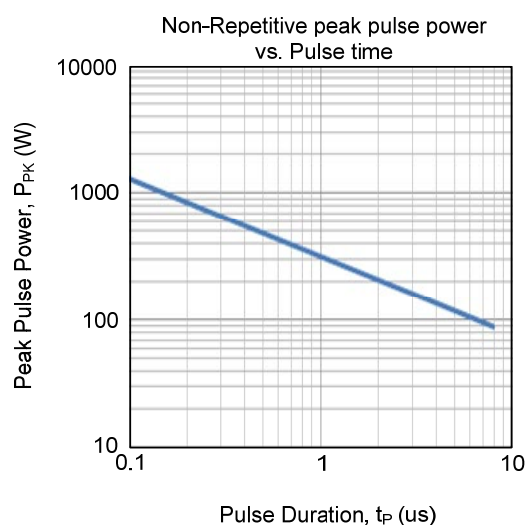
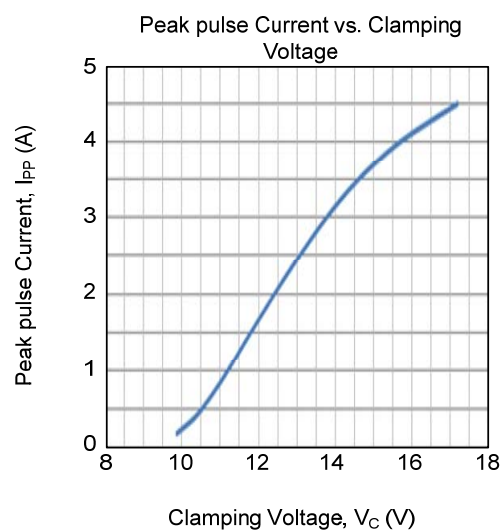
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ **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		10	V
Reverse Current	I _R	V _R =5.0V			100	nA
Diode capacitance	C _D	V _R =0V, f=1MHz			0.5	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)			17	V

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

TYPICAL CHARACTERISTICS



UTC assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all UTC products described or contained herein. UTC products are not designed for use in life support appliances, devices or systems where malfunction of these products can be reasonably expected to result in personal injury. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. UTC reserves the right to make changes to information published in this document, including without limitation specifications and product descriptions, at any time and without notice. This document supersedes and replaces all information supplied prior to the publication hereof.