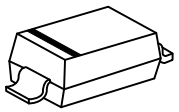
UESD12VL1BA03

Preliminary ***TVS***

UNIDIRECTIONAL ESD PROTECTION DIODE



SOD-323

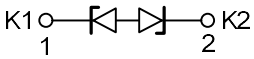
■ DESCRIPTION

The UTC **UESD12VL1BA03** unidirectional ElectroStatic Discharge (ESD) protection diode in a X1DFN1006-2 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

* ESD protection of one line
* Max. peak pulse power: P_{PPM} = 125W
* Low clamping voltage: V_{CL} = 23V
* Ultra low leakage current: I_{RM} < 100nA
* ESD protection up to 30 kV
* IEC 61000-4-2; level 4 (ESD)
* IEC 61000-4-5; (surge); I_{PPM} = 5.5A
* Green & Pb Free

■ SYMBOL



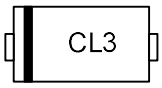
■ ORDERING INFORMATION

Ordering Number	Package	Pin Assignment		Packing
		1	2	
UESD12VL1BA03G-CB2-R	SOD-323	K1	K2	Tape Reel

Note: Pin Assignment: K: Cathode

UESD12VL1BA03G-CB2-R (1)Packing Type (2)Package Type (3)Green Package	(1) R: Tape Reel (2) CB2: SOT-323 (3) G: Halogen Free and Lead Free

■ MARKING



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■ ABSOLUTE MAXIMUM RATINGS (T_A = 25°C, unless otherwise specified)

PARAMETER			SYMBOL	RATINGS	UNIT
ESD Discharge	IEC61000-4-2	Air Discharge	V_{ESD}	±15	kV
		Contact Discharge		±30	kV
Peak Pulse Current	IEC61000-4-5	t_p=8/20μs	I_{PPM}	5.5	A
Peak Pulse Power			P_{PP}	125	W
Operating Junction Temperature			T_J	+150	°C
Operating Temperature			T_{OPR}	-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}		12			V
Reverse Breakdown Voltage (Note 1)	V_{BR}	I_R=5mA	14.2	15.3	16.7	V
Reverse Current	I_R	V_R=12V		1	100	nA
Diode capacitance	C_d	V_R=0V, f=1MHz		17		pF
Clamping Voltage (positive transient) (Note 2)	V_{CL}	I_{PP}=1.0A, t_P=8/20μs (Note)			20	V
		I_{PPM}=5.5A, t_P=8/20μs (Note)			23	V

Notes: 1. Pulse test: $t_P \leq 300$ μs; duty cycle ≤ 0.02.
2. Device stressed with 8/20 μs exponential decay waveform according to IEC 61000-4-5.

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