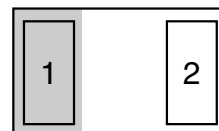
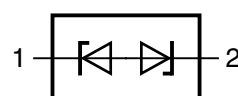


Features

- Pb-free, Restriction of Hazardous Substances (RoHS) compliant and free of halogen and antimony
- Bidirectional ESD protection of one line
- Very low diode capacitance $C_d = 3.5 \text{ pF}$
- ESD protection up to $\pm 15 \text{ kV}$ according to IEC 61000-4-2
- Ultra small SMD package
- Symmetrical breakdown voltage



0201



Applications

- Cellular handsets and accessories
- Portable electronics
- Communication systems
- Computers and peripherals

$T_{amb} = 25^\circ\text{C}$ unless otherwise specified.

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
V_{RWM}	reverse standoff voltage		-5	-	5	V
C_d	diode capacitance	$f = 1 \text{ MHz}; V_R = 0 \text{ V}$ ^[1]	2.5	3.5	4.5	pF

In accordance with the Absolute Maximum Rating System

Symbol	Parameter	Conditions	Min	Max	Unit
P_{PP}	peak pulse power	$t_p = 8/20 \text{ } \mu\text{s}$	-	8	W
I_{PP}	peak pulse current	$t_p = 8/20 \text{ } \mu\text{s}$	-	1	A
T_j	junction temperature		-	150	$^\circ\text{C}$
T_{amb}	ambient temperature		-55	+150	$^\circ\text{C}$
T_{stg}	storage temperature		-65	+150	$^\circ\text{C}$

T_{amb} = 25 °C unless otherwise specified

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Per diode						
V _{RWM}	reverse standoff voltage		-5	-	5	V
I _{RM}	reverse leakage current	V _{RWM} = 5 V	-	1	100	nA
V _{CL}	clamping voltage	I _{PP} = 0.5 A	-	-	11.5	V
		I _{PP} = 1 A	-	-	12.8	V
V _{BR}	breakdown voltage	I _R = 1 mA	6	-	10	V
		I _R = -1 mA	-10	-	-6	V
C _d	diode capacitance	f = 1 MHz				
		V _R = 0 V	2.5	3.5	4.5	pF
		V _R = 2.5 V	-	2.7	3.5	pF
		V _R = 5 V	-	2.5	3.2	pF
L _S	series inductance		-	0.05	-	nH
R _{dyn}	dynamic resistance		-	2.5	-	Ω

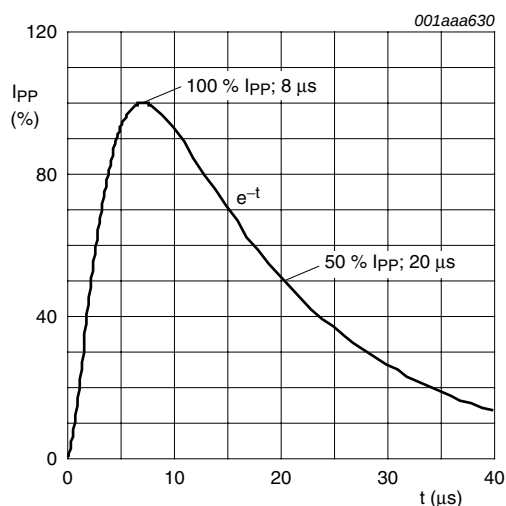


Fig 1. 8/20 μs pulse waveform according to IEC 61000-4-5

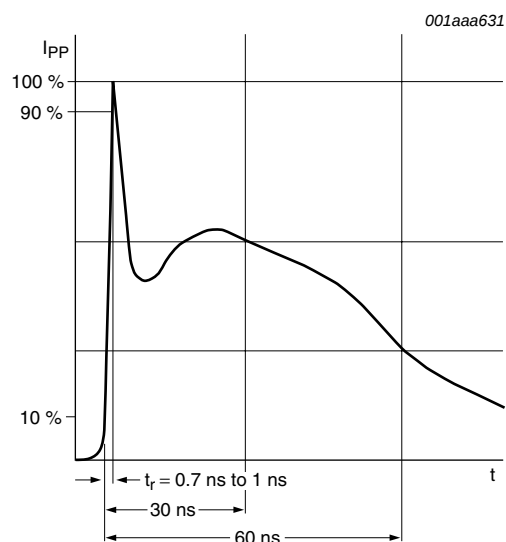
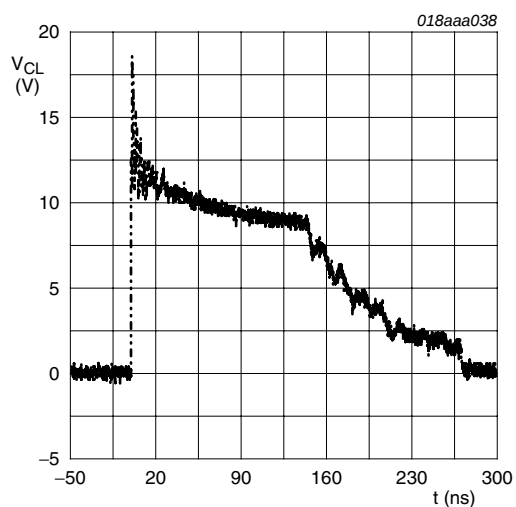
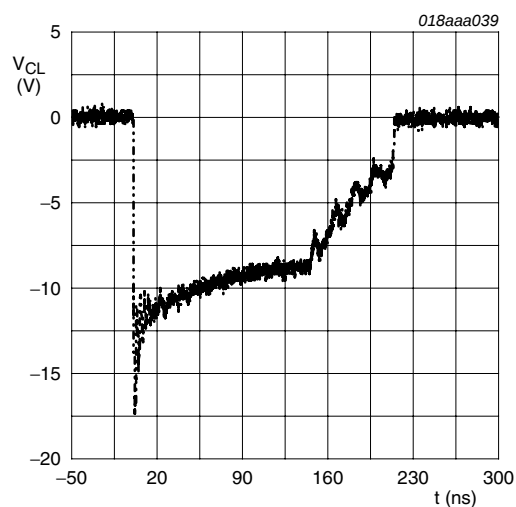


Fig 2. ESD pulse waveform according to IEC 61000-4-2



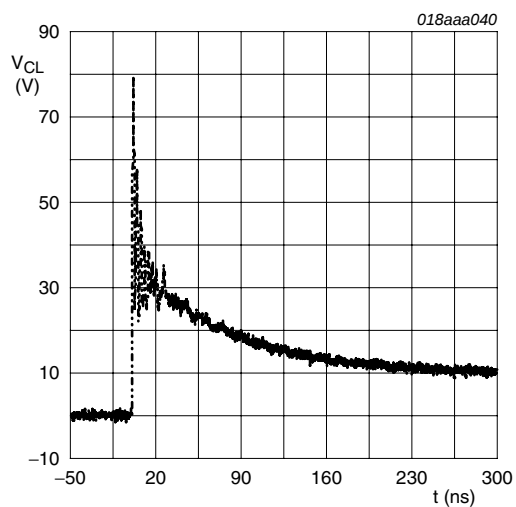
$f = 1 \text{ MHz}; T_{amb} = 25 \text{ }^{\circ}\text{C}$

**Clamped +1 kV ESD pulse waveform
(IEC 61000-4-2 network)**



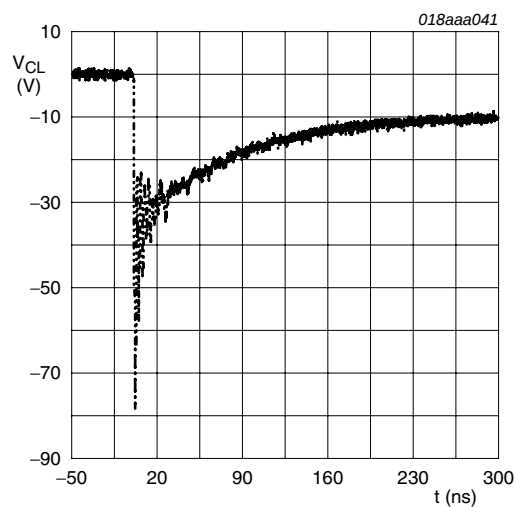
$f = 1 \text{ MHz}; T_{amb} = 25 \text{ }^{\circ}\text{C}$

**Clamped -1 kV ESD pulse waveform
(IEC 61000-4-2 network)**



$f = 1 \text{ MHz}; T_{amb} = 25 \text{ }^{\circ}\text{C}$

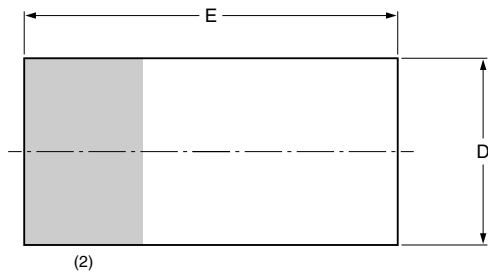
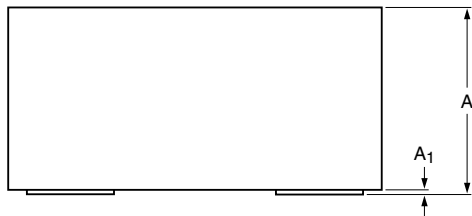
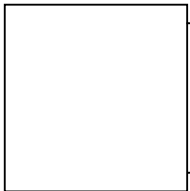
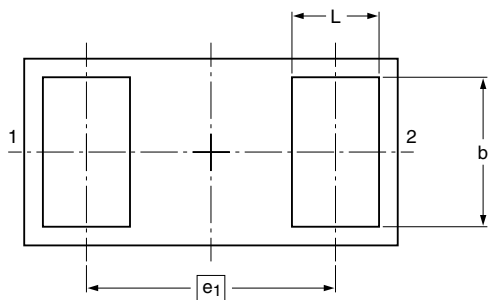
**Clamped +8 kV ESD pulse waveform
(IEC 61000-4-2 network)**



$f = 1 \text{ MHz}; T_{amb} = 25 \text{ }^{\circ}\text{C}$

**Clamped -8 kV ESD pulse waveform
(IEC 61000-4-2 network)**

Leadless ultra small package; 2 terminals; body 0.6 x 0.3 x 0.3 mm



Dimensions

Unit	A ⁽¹⁾	A ₁	b	D	E	e ₁	L
mm	max	0.32	0.0076	0.25	0.325	0.625	0.15
	nom					0.4	
	min	0.28		0.23	0.275	0.575	0.13

Note
1. Dimension A is including coating foil thickness.
2. The marking bar indicates the cathode.