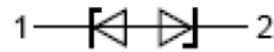


Features

- 1 Channel of ESD Protection.
- Low Channel Input Capacitance.
- ESD immunity acc. IEC 61000-4-2
± 30 kV contact discharge
± 30 kV air discharge

HF



Typical Applications

- Cellular Handsets.
- Portable Electronics.
- Computers and Peripheral.

Mechanical Data

- Case: DFN1006-2.
- Molding compound, UL flammability classification rating 94V-0.
- Terminals: Tin plated leads, solderable per MIL-STD-202, Method 208.



GESD0512BL

DFN1006-2

Ordering Information

Part Number	Package	Shipping	Marking Code
GESD0512BL	DFN1006-2	10000/Tape Reel	Q3

Maximum Ratings (@T_A=25°C unless otherwise specified)

Characteristic	Symbol	Value	Units
Electrostatic discharge voltage (IEC 61000-4-2 contact discharge) (IEC 61000-4-2 air discharge)	V _{ESD}	±30	KV
Peak pulse power dissipation(t _p =8/20μs)	P _{PP}	150	W
Peak pulse current(t _p =8/20μs)	I _{PP}	9	A

Thermal Characteristics

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P _D	250	mW
Thermal Resistance, Junction to Ambient (Note 1)	R _{θJA}	500	°C/W
Junction temperature	T _J	125	°C
Storage and operating temperature	T _{STG} T _{amb}	-55 to+150	°C

Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=1\text{mA}$ pin1 to pin2	12	-	17	V
		pin2 to pin1	6.2	-	11	
Reverse Leakage Current (Note 2)	I_R	$V_{RWM}=5\text{V}$ pin1 to pin2	-	-	25	nA
		pin2 to pin1			20	
Clamping Voltage ($I_{pp}=9\text{A}, T_p=8/20\mu\text{s}$)	V_C	pin1 to pin2	-		24	V
		pin2 to pin1	-		12	
Diode Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$	-	-	30	pF

Notes: 1. Device mounted on FR-4 PCB pad layout (2oz copper).

2. Short duration pulse test used to minimize self-heating effect.

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

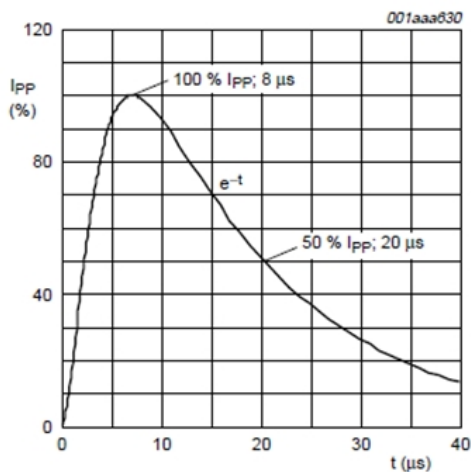


Fig1. 8/20us pulse waveform according to IEC61000-4-5

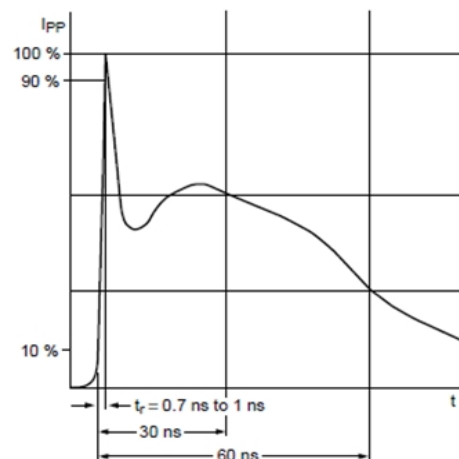
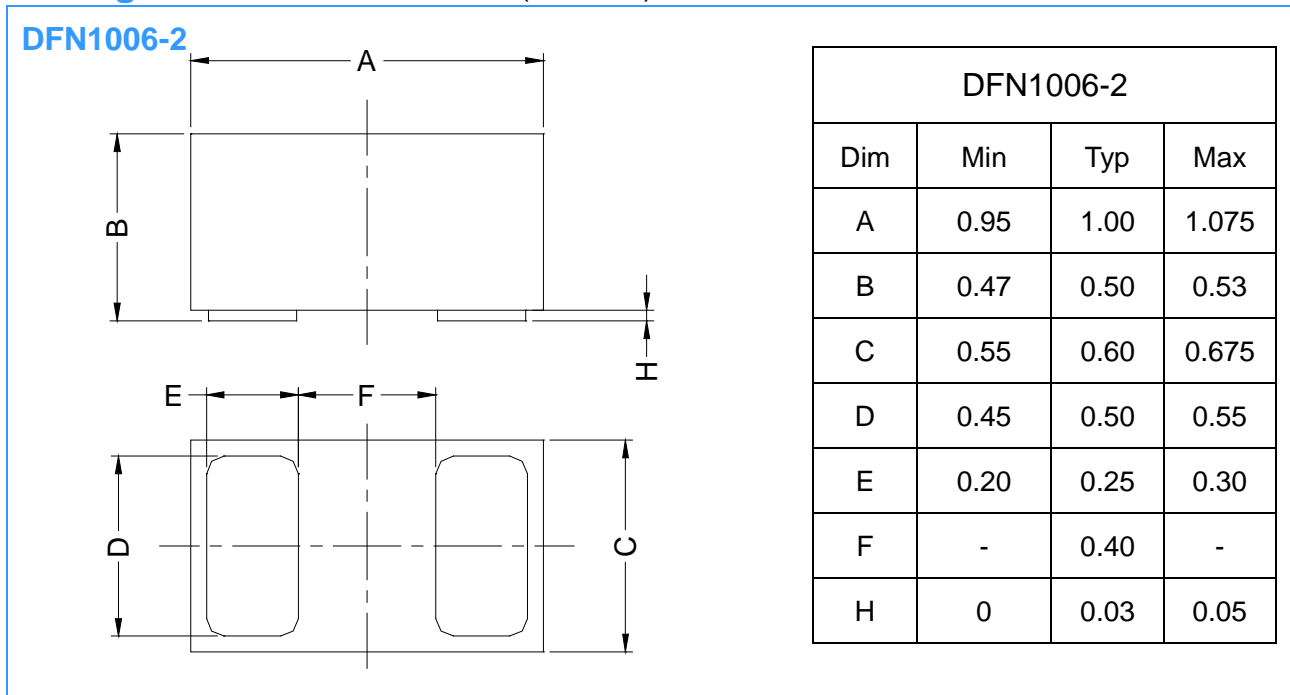
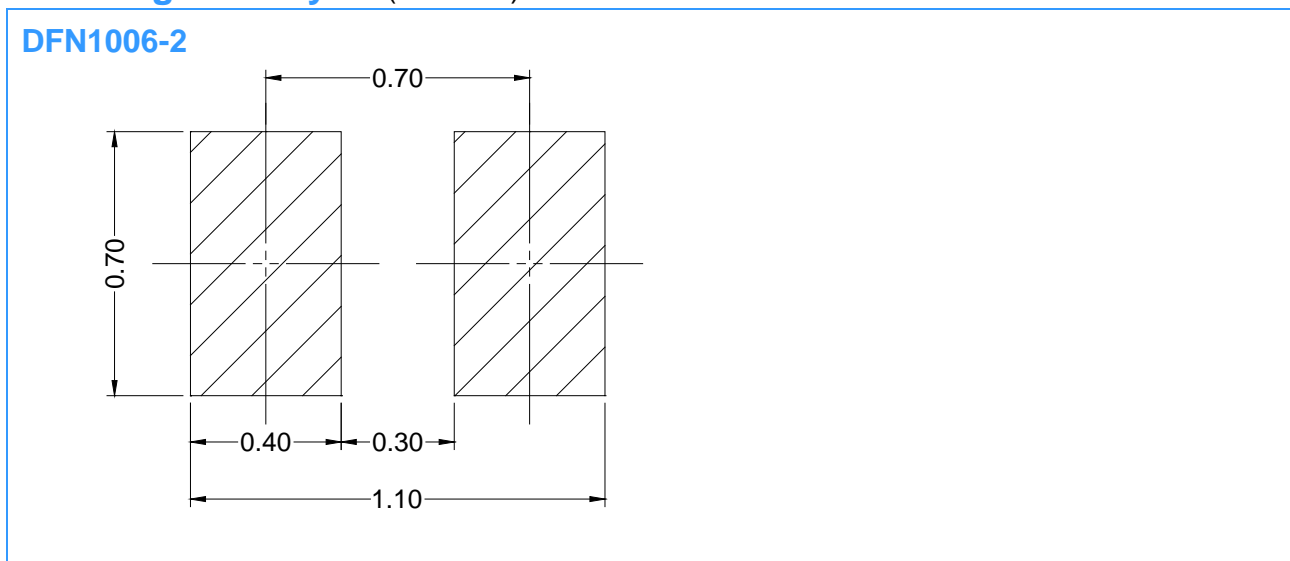


Fig2. ESD pulse waveform according to IEC61000-4-2

Package Outline Dimensions(unit:mm)



Mounting Pad Layout(unit:mm)



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