

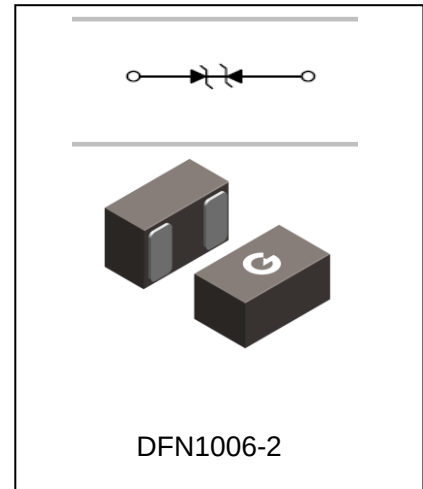
Bi-directional ESD Protection Diode

GESD5V0S1BL

FEATURES

- Bidirectional ESD protection of one line
- Max. peak pulse power: $P_{PK} = 130\text{ W}$
- Low clamping voltage: $V_C = 12\text{ V}$
- ESD protection $> 30\text{ KV}$
- IEC 61000-4-2, level 4 (ESD)
- IEC 61000-4-5 (surge); $IPP = 12\text{ A}$
- Ultra small SMD plastic packages
- RoHS compliant with Halogen-free

HF



APPLICATIONS

- Cellular handsets and accessories.
- Portable electronics.
- Computers and peripherals.
- Communication systems.
- Audio and video equipment.

ORDERING INFORMATION

Type No.	Marking	Package Code
GESD5V0S1BL	F1	DFN1006-2

MAXIMUM RATING @ $T_a = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Limits	Unit
Electrostatic discharge voltage EC61000-4-2(contact discharge)	V_{ESD}	30	kV
Electrostatic discharge voltage Human Body Model	V_{ESD}	10	kV
Reverse Stand-off Voltage	V_{RWM}	5	V
peak pulse power (according to IEC61000-4-5 $t_P = 8/20\mu\text{s}$)	P_{PP}	130	W
Peak pulse current (according to IEC61000-4-5 $t_P = 8/20\mu\text{s}$)	I_{PP}	12	A
Junction temperature	T_J	-40 to +150	$^\circ\text{C}$
Storage temperature	T_{STG}	-40 to +150	$^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=1mA$	6	-	8	V
Reverse Leakage Current	I_R	$V_{RWM}=5V$	-	-	1	μA
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	-	45	-	pF
Clamping Voltage (according to IEC61000-4-5 $t_P=8/20\mu s$)	V_C	$I_{PP}=1A$ $I_{PP}=12A$	-	- 12	10 20	V

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

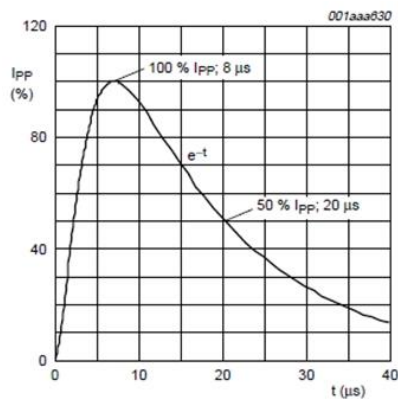


Fig1. 8/20us pulse waveform according to IEC61000-4-5

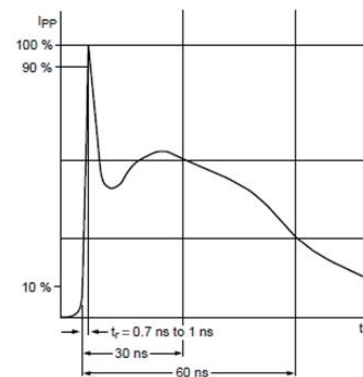


Fig2. ESD pulse waveform according to IEC61000-4-2

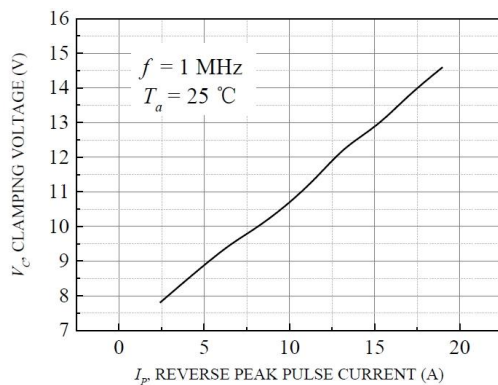


Fig3. VC/IP_P Characteristic curve

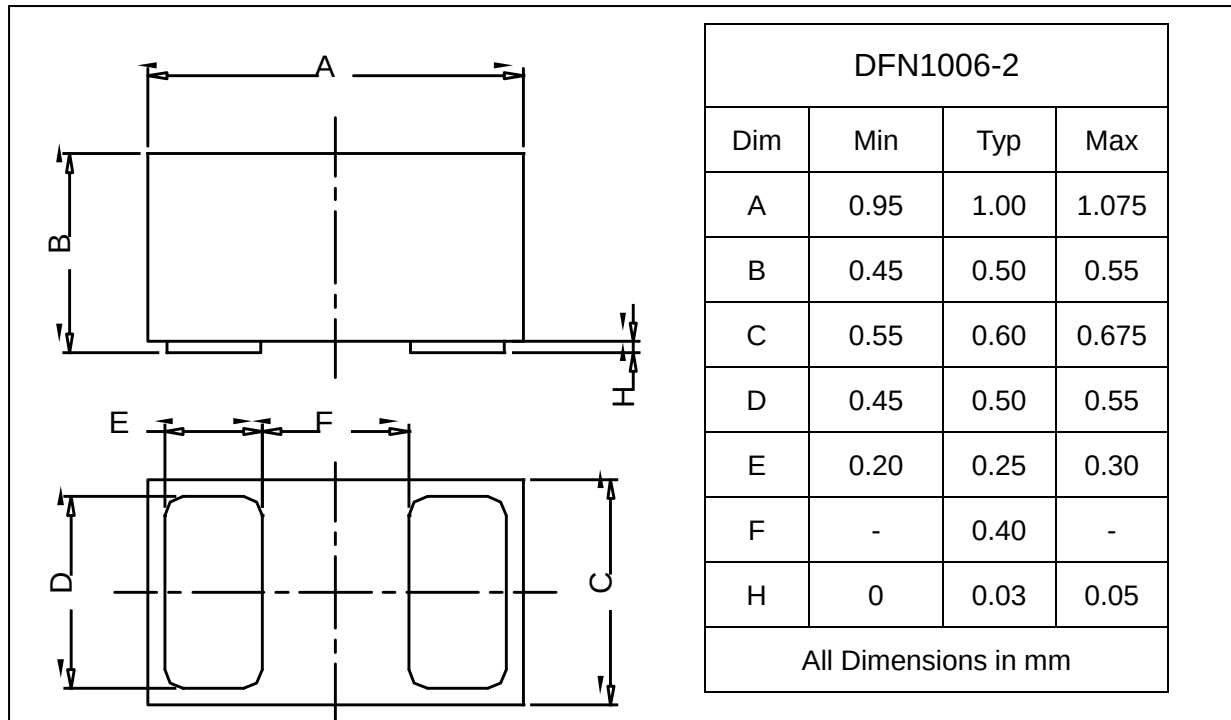
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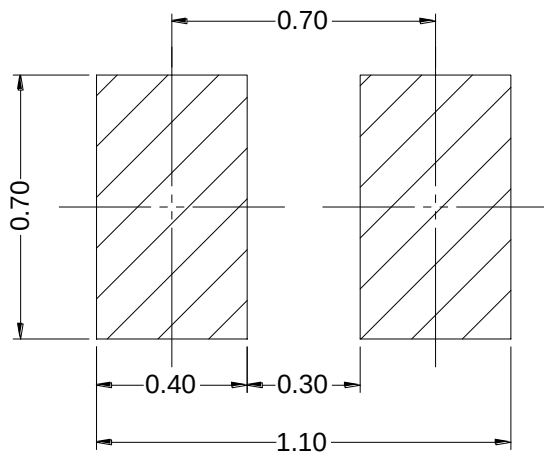
PACKAGE OUTLINE

Plastic surface mounted package

DFN1006-2



SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
GESD5V0S1BL	DFN1006-2	10000 pcs / Tape & Reel