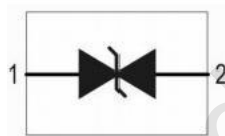




1-Line Bidirectional ESD Protection Diode

DFN1006-2L

Schematic & Pin configuration

Simplified outline	Graphic symbol
<p>1 2</p>	

General description

Low capacitance bidirectional ElectroStatic Discharge(ESD)protection diode in a DFN1006(SOD882)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 and benefits

- Femtofarad capacitance: $C_j = 16\text{pF}$ (Typ)
- Ultra Low Leakage:nA Level
- Low clamping voltage $V_c < 18\text{ V}@I_{pp} = 20\text{A}$
- IEC 61000-4-2:
 - Air discharge: $\pm 30\text{KV}$, Contact discharge: $\pm 30\text{KV}$
- IEC 61000-4-5 (8/20 μs) : $I_{pm} = 20\text{ A}$
- RoHS Compliant

Application information

- Cellular Handsets and Accessories
- Keypads,Side Keys,LCD Displays
- Notebooks and Handhelds
- Personal Digital Assistants
- Portable Instrumentation
- Digital Cameras
- Audio Players
- Peripherals

Ordering information

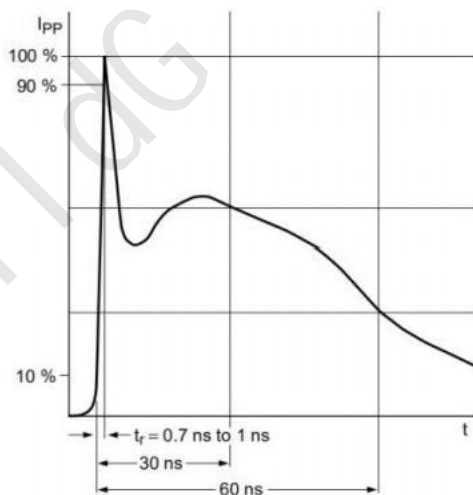
Device	Package	Marking	Packaging
ESD8B7.0C	DFN1006-2L	S7B	10000/Tape & Reel

Maximum Ratings (Top=25 °C, unless otherwise specified)

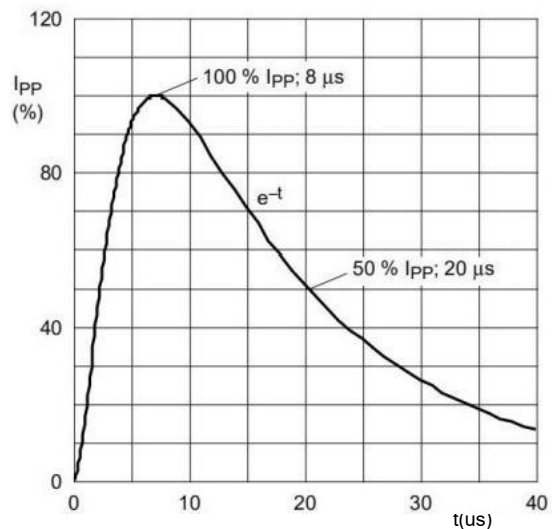
Parameter	Symbol	Value	Unit
Peak Pulse Power (Tp=8/20 μs)	PpPM	360	W
Rated Peak Pulse Current (Tp=8/20 μs)	IpPM	20	A
Maximum lead temperature for soldering during 10s	Tt	260	°C
Storage Temperature Range	Tstg	-55 to +150	°C
Operating Temperature Range	Top	-40 to +125	°C
ESD voltage IEC 61000-4-2 (air discharge)	VesD	30	KV
ESD voltage IEC 61000-4-2 (contact discharge)	VESD	30	KV

Electrical Characteristics (Top=25 C, unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	VRWM			7.0	v	
Breakdown Voltage	VBR	8.0		9.5	v	I _r =1mA
Leakage Current I _{Leak}	I _r			100	nA	VRWM=7V
Clamping Voltage	V _c			12.0	v	I _{pp} =10A, T _p =8/20 μs
Clamping Voltage	V _c			18.0	v	I _{pp} =20A, T _p =8/20 μs
Junction Capacitance	C _i		16	18	pF	VR=0V, f=1MHz



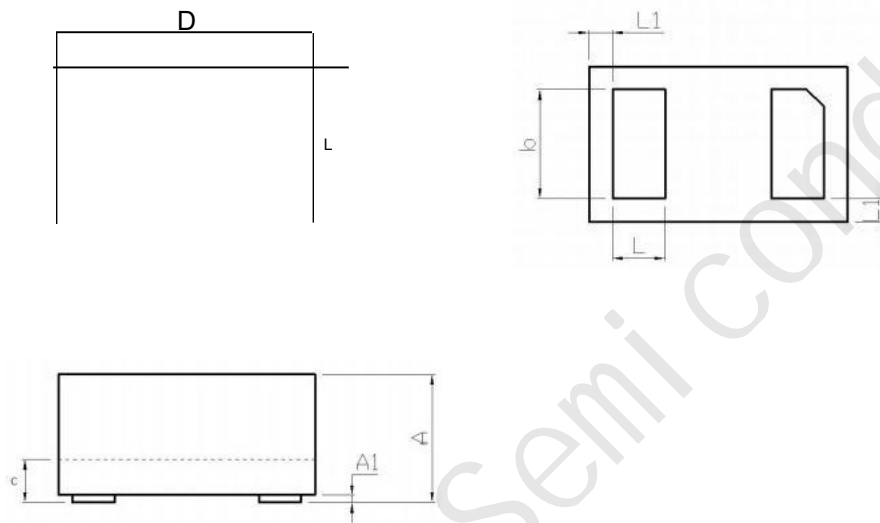
IEC61000-4-2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

Package Outline Dimensions

DFN1006-2L



DFN1006-2L (mm)			
Dim	Min	Typ	Max
A	0.40	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.5	0.55
C	0.1	0.15	0.18
D	0.95	1.00	1.05
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.035	0.05	0.065