

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: $C_j = 8\text{pF}$ (Typ)
- Ultra Low Leakage: nA Level
- Low clamping voltage $V_C < 18\text{ V@ IPP} = 9.0\text{ A}$
- IEC 61000-4-2:
Air discharge: $\pm 30\text{KV}$, Contact discharge: $\pm 30\text{KV}$
- IEC 61000-4-5 (8/20 μs): IPPM = 9.0 A
- RoHS Compliant



DFN1006-2L

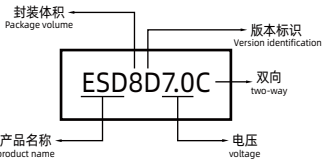
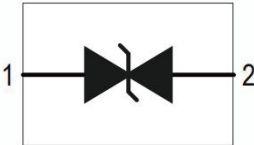
Application information

- 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	Reel Size	Qty(PCS)
ESD8D7.0C	DFN1006-2L	7 Inch	10000

Ordering information

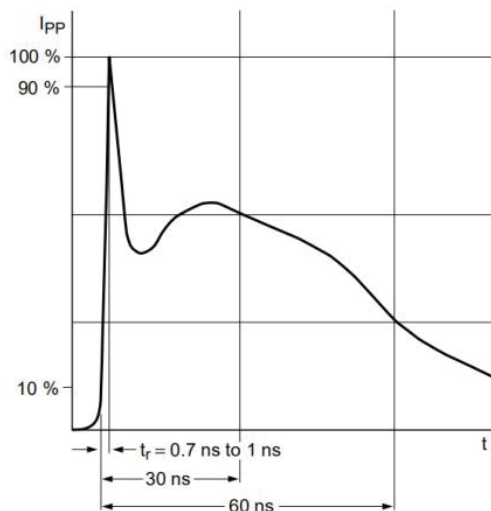
Marking	Naming rule	Graphic symbol
R2C		

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

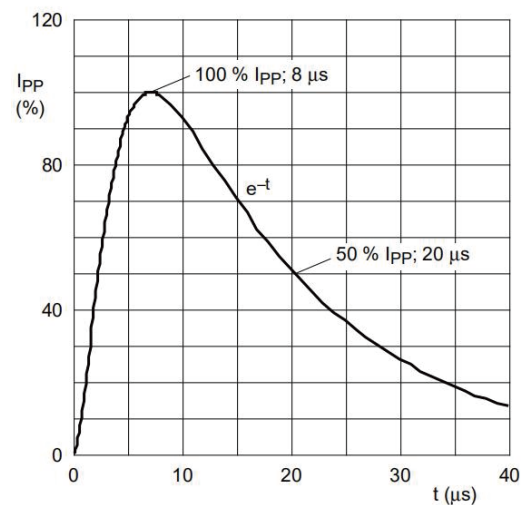
Parameter	Symbol	Value	Unit
Peak Pulse Power (tp = 8/20μs)	P _{PPM}	160	W
Peak Pulse Current(tp = 8/20μs)	I _{PPM}	9.0	A
Maximum lead temperature for soldering during 10s	T _L	260	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C
Operating Temperature Range	T _{OP}	-40 to +125	°C
Maximum junction temperature	T _j	150	°C
ESD voltage IEC 61000-4-2 (air discharge)	V _{ESD}	30	kV
ESD voltage IEC 61000-4-2 (contact discharge)	V _{ESD}	30	kV

Electrical Characteristics (T_A = 25 °C, unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Reverse Working Voltage	V _{RWM}	--	--	7.0	V	
Breakdown Voltage	V _{BR}	8.0	--	--	V	I _T =1mA
Leakage Current I _{Leak}	I _R	--	--	100	nA	V _{RWM} =7V
Clamping Voltage	V _C	--	--	18.0	V	I _{PP} =9.0A, T _p =8/20μs
Junction Capacitance	C _J	--	8	10	pF	V _R =0V, f=1MHz

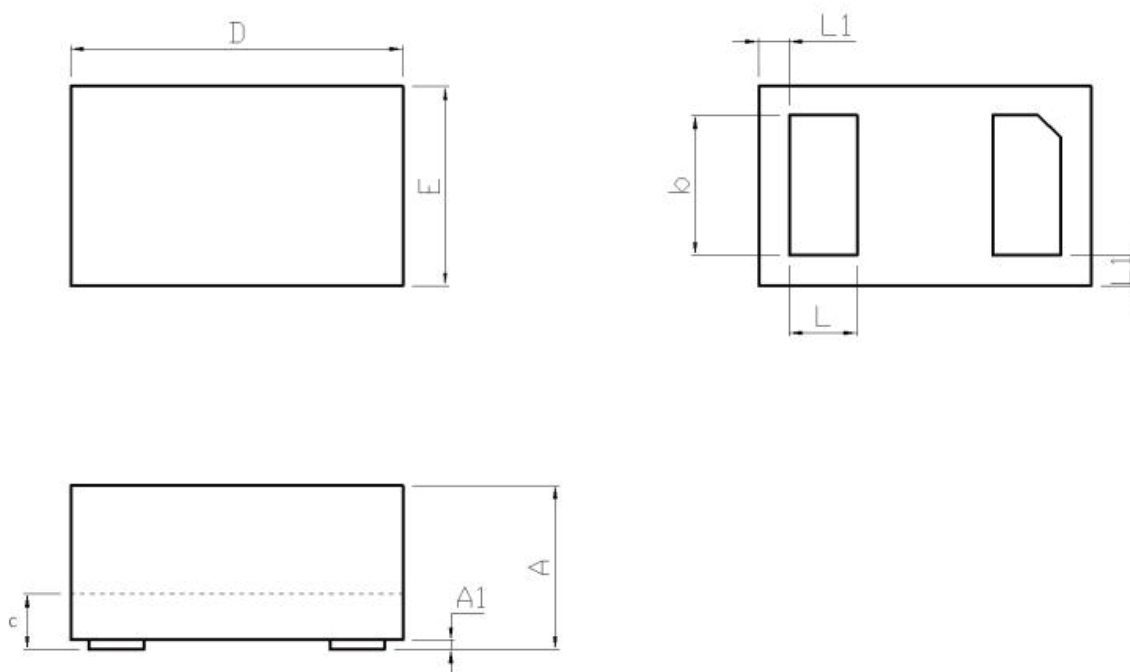


IEC61000-4-2 Waveform



IEC 61000-4-5 Waveform(8/20μs pulse)

DFN1006-2L Package Outline Dimensions



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