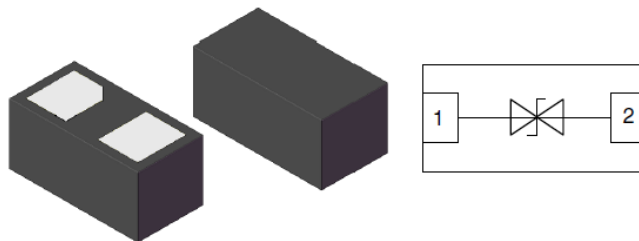


Features

- ◆40Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆DFN1006 package
- ◆Bidirectional configurations
- ◆Low clamping voltage
- ◆Low leakage current
- ◆Normal capacitance ($C_j = 3pF$ typ.)
- ◆Protection one data/power line to:
IEC 61000-4-2 $\pm 20kV$ contact $\pm 25kV$ air
IEC 61000-4-4 (EFT) 40A (5/50ns)
IEC 61000-4-5 (Lightning) 3.5A (8/20 μs)



Applications

- ◆Cell Phone Handsets and Accessories
- ◆Microprocessor based equipment
- ◆Personal Digital Assistants (PDA's)
- ◆Notebooks, Desktops, and Servers
- ◆Portable Instrumentation

Mechanical Data

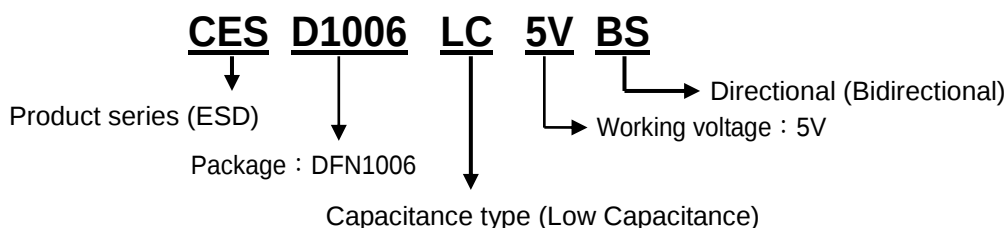
- ◆Case: DFN1006 (plastic package).Lead free; RoHS compliant
- ◆Molding Compound Flammability Rating:UL 94 V-0
- ◆Terminals: High temperature soldering guaranteed:260 °C/10 sec. at terminals

Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Peak Pulse Power ($TP=8/20\mu s$)	P_{PP}	40	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	20/25	kV
Peak Pulse Current ($tP = 8/20\mu s$)	I_{PP}	3.5	A
Junction Temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +125	°C

Ordering/Mark information



Order code	Marking	Package	Packaging option	Base quantity	Packaging specification
CESD1006LC5VBS	LB5	DFN1006	Tape and reel	10000pcs / reel	EIA STD RS-481



ESD Protection Diode in DFN1006

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	VRWM				5	V
Reverse Breakdown Voltage	VBR	IT=1mA	5.5			V
Reverse Leakage Current	IR	VRWM=5V			500	nA
Clamping Voltage (IEC 61000-4-2)	VC	VESD=8KV		10		V
Clamping Voltage (IEC 61000-4-5)	VC	IPP=3.5A			12	V
Junction Capacitance	CJ	VR=0V, f=1MHz		3.0		pF

Typical Characteristics ($T_{\text{amb}} = 25^\circ\text{C}$ unless otherwise specified)

Fig.1 Peak Pulse Power Rating Curve

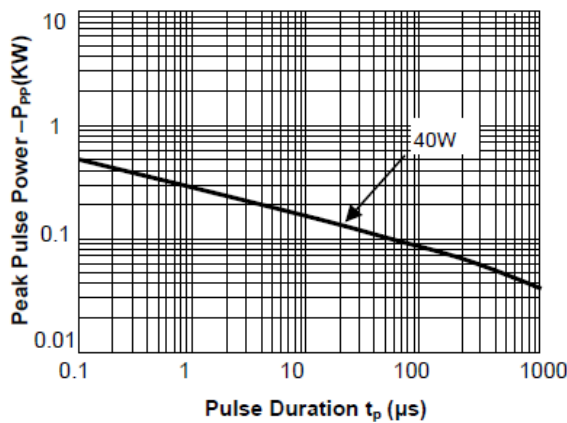


Fig.2 Pulse Derating Curve

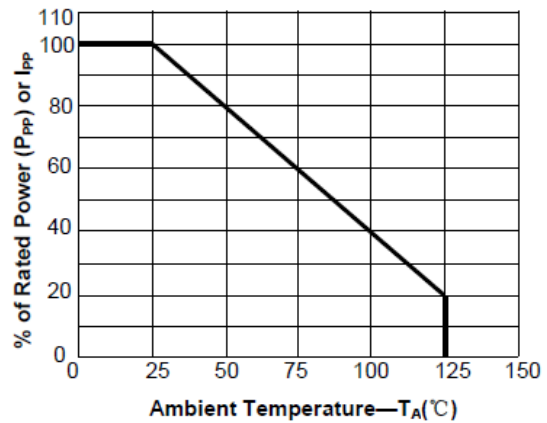


Fig.3 Pulse Waveform-8/20 μs

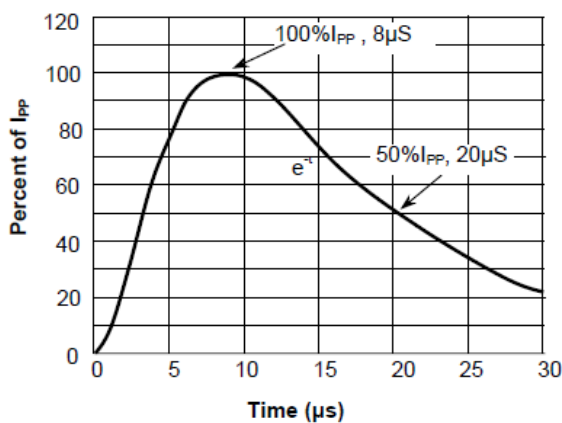
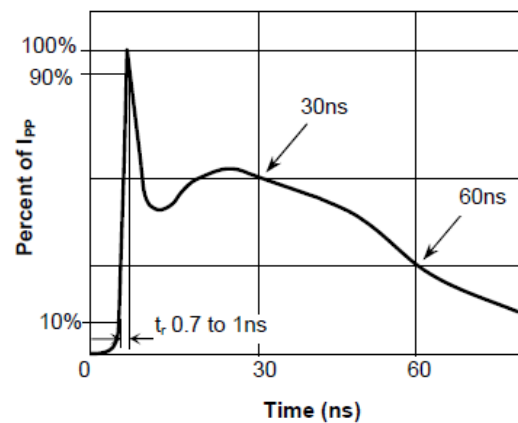
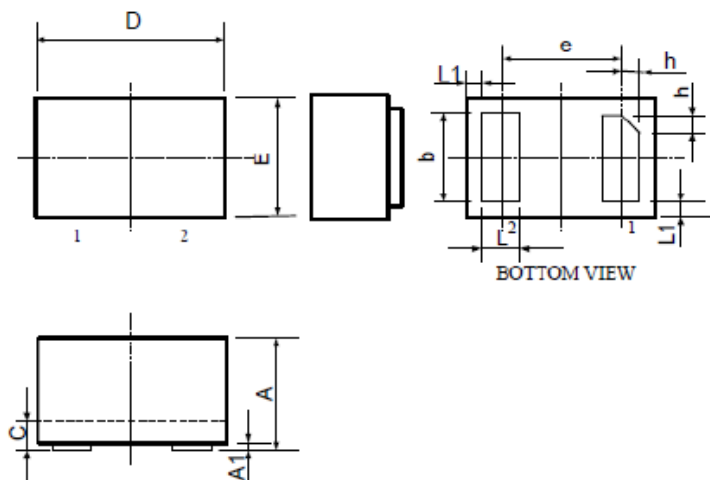


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



Package Dimensions



SYMB OL	MILIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
C	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17