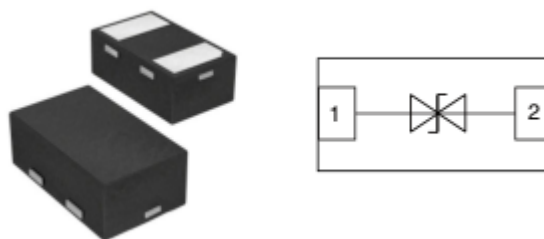


Features

- ◆ 200Watts peak pulse power ($t_p = 8/20\mu s$)
- ◆ DFN1006 package
- ◆ Bidirectional configurations
- ◆ Low clamping voltage
- ◆ Low leakage current
- ◆ Normal capacitance ($C_j = 30pF$ typ.)
- ◆ Protection one data/power line to:
IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
IEC 61000-4-4 (EFT) 40A (5/50ns)
IEC 61000-4-5 (Lightning) 18A (8/20 μs)



Applications

- ◆ Microprocessor based equipment
- ◆ Personal Digital Assistants (PDAs)
- ◆ Notebooks & Handhelds
- ◆ Portable Instrumentation
- ◆ Digital Cameras
- ◆ 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 ($T_p = 8/20\mu s$)	P_{PP}	200	W
ESD contact/air discharge (IEC-61000-4-2)	V_{ESD}	30/30	kV
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{PP}	18	A
Junction Temperature	T_J	-55 to +125	°C
Storage temperature	T_{STG}	-55 to +125	°C

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

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5V$		0.1	0.5	μA
Clamping Voltage (SURGE)	V_C	$I_{pp} = 18A$			11.5	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		30		pF

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

Fig.1 Peak Pulse Power Rating Curve

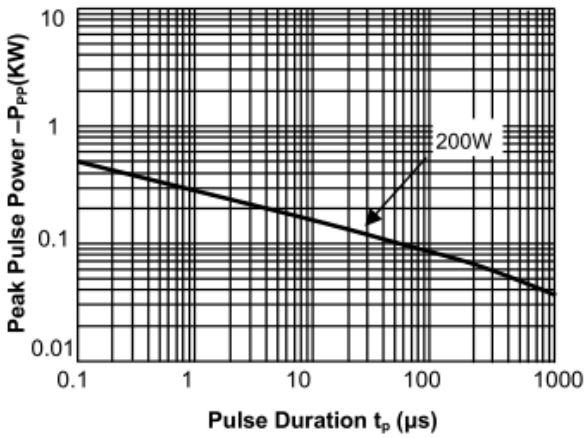


Fig.2 Pulse Derating Curve

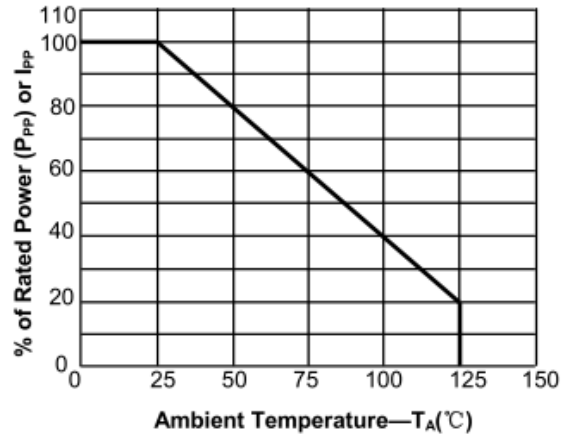


Fig.3 Pulse Waveform-8/20μs

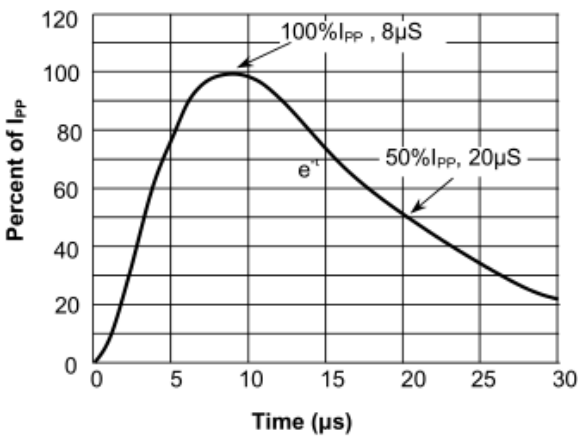
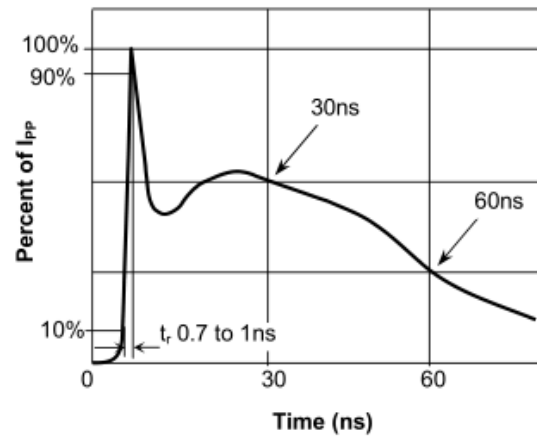
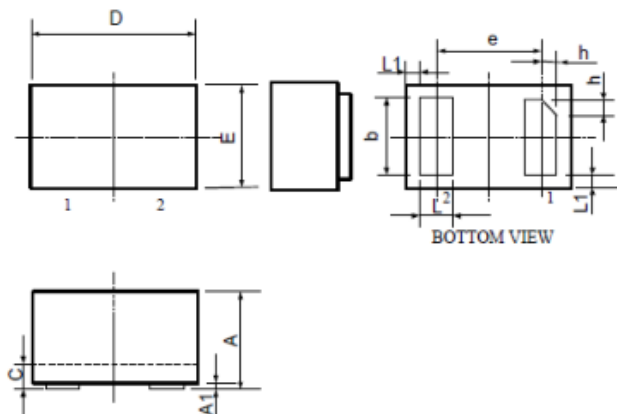


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



Package Dimensions



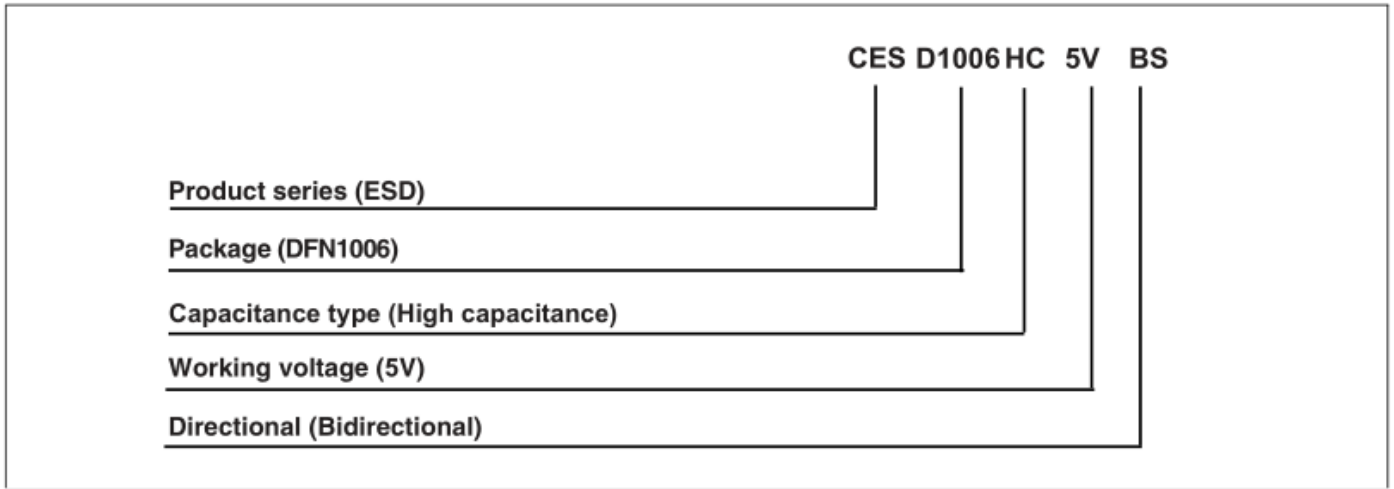
SYMB	MILIMETER		
	MIN	NOM	MAX
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
C	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65BSC		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05REF		
h	0.07	0.12	0.17



ESD Protection Diode in DFN1006

CESD1006HC5VBS

Part Number System



Marking Information



Ordering Information

Order code	Package	Packaging option	Base quantity	Packaging specification
CESD1006HC5VBS	DFN1006	Tape and reel	10000pcs / reel	EIA STD RS-481