



Features

- 450Watts peak pulse power ($t_p = 8/20\mu s$)
- Unidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Protection one data/power line
- IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 40A for IO-GND (8/20 μs)
- IEC 61000-4-5 (Lightning) 60A for GND-IO (8/20 μs)



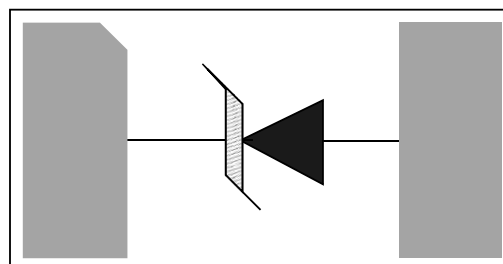
Applications

- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation

Mechanical Data

- DFN1006 package
- Molding compound flammability rating: UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration



DFN1006

Absolute Maximum Rating

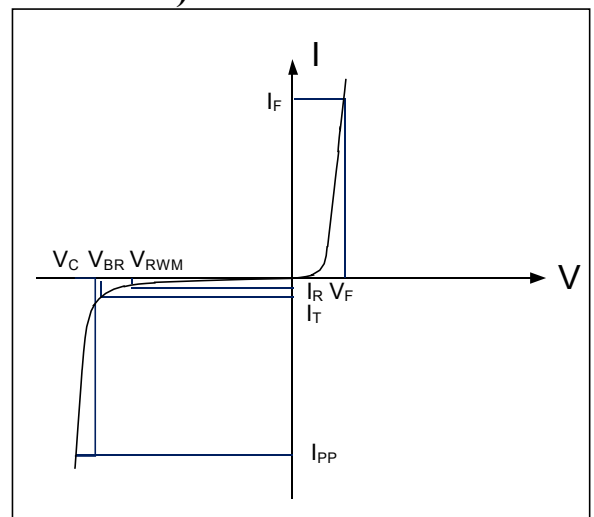
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	450	Watts
Peak Pulse Current ($t_p=8/20\mu s$) (note1)	I_{PP}	40	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to + 125	$^{\circ}C$

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				7	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	7.6			V
Forward Voltage	V_F	$I_F=10mA$		0.8		V
Reverse Leakage Current	I_R	$V_{RWM}=6.8V, T=25^{\circ}C$			1	μA
Clamping Voltage	V_C	$V_S=80V, I_{PP}=30A, t_p=8/20\mu s$		10		V
		$V_S=100V, I_{PP}=40A, t_p=8/20\mu s$		11		V
Forward Clamping Voltage	V_C	$V_S=80V, I_{PP}=32A, t_p=8/20\mu s$		4.5		V
		$V_S=100V, I_{PP}=40A, t_p=8/20\mu s$		6.0		V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		270		pF

Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Note: 8/20 μs pulse waveform.

Typical Characteristic

Fig.1 Peak Pulse Power Rating Curve Fig.2 Pulse Derating Curve

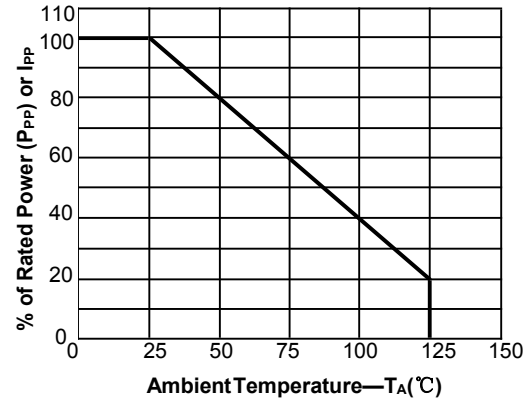
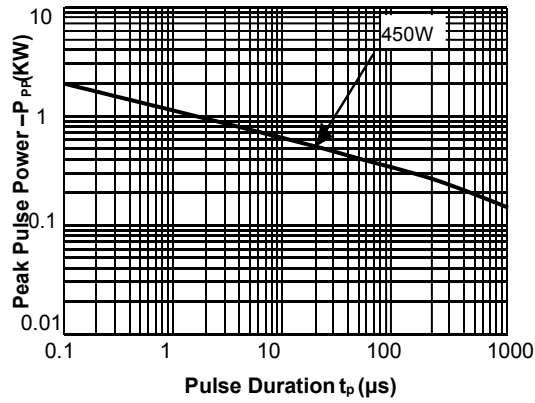


Fig.3 Pulse Waveform-8/20μs

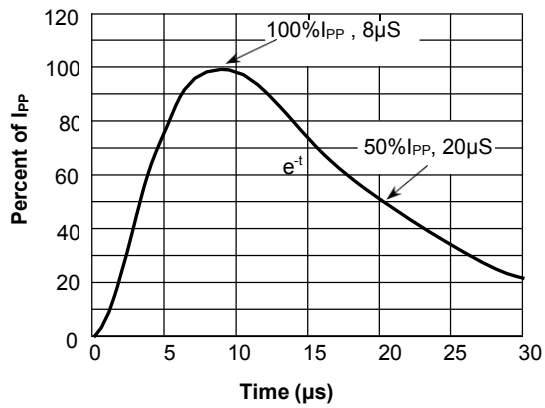


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)

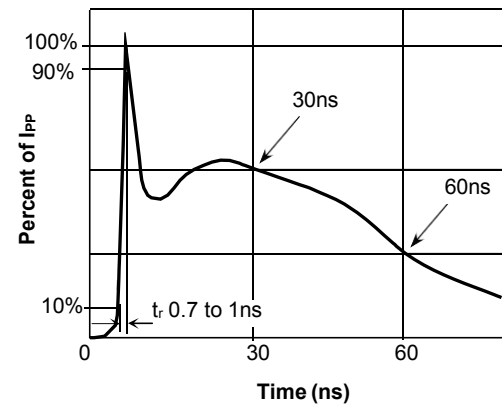


Fig.5 IEC61000-4-2 +30kV Contact Discharge

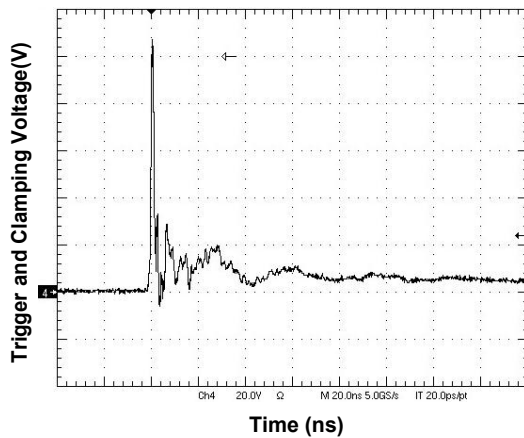
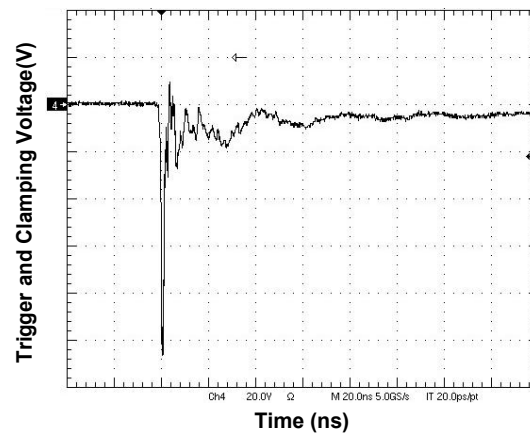
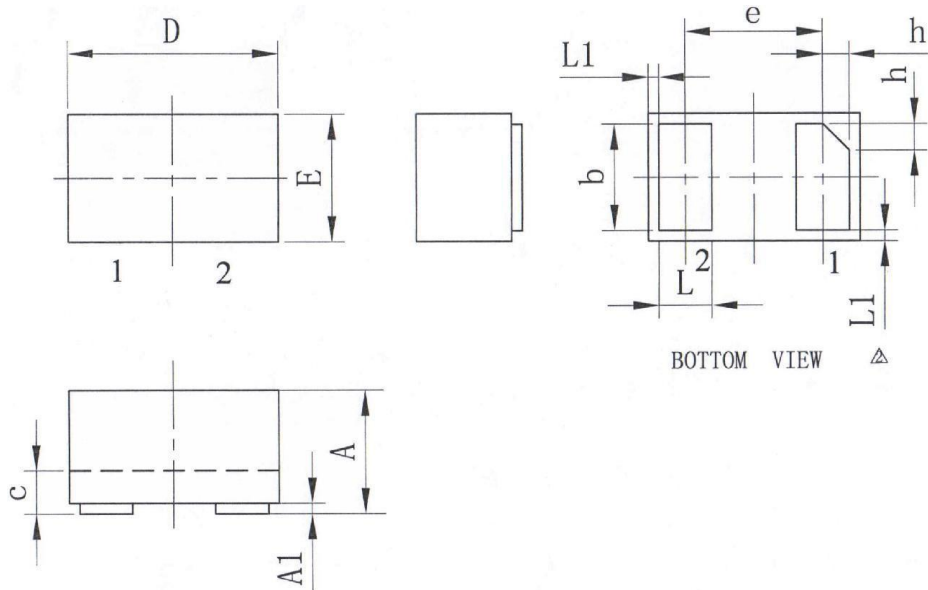


Fig.6 IEC61000-4-2 -30kV Contact Discharge

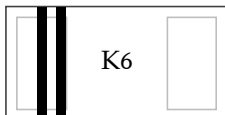


Outline Drawing – DFN1006



SYMBOL	MILLIMETER		
	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
载体尺寸 (M1)	20*20		

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
SESF4N0712P	DFN1006	10k	Tape and reel