Transient Voltage Suppressors for ESD Protection

SE07N6S01GZ

Features

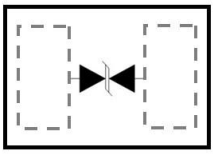
- Working voltage : 7V
- Low capacitance: 17pF (Typical)
- Low leakage current: 0.5μA @ V_{RWM}
- Low clamping voltage
- Response Time is < 1 ns

DFN1006

Applications

- Serial and Parallel Ports
- Notebooks, Desktops, and Servers
- Projection TV
- Cellular Handsets and Accessories

Functional Diagram



Mechanical Characteristics

- DFN1006 Package
- Molding Compound Flammability Rating : UL 94V-0
- Quantity Per Reel : 10,000pcs
- Reel Size : 7 inch

Absolute Maximum Rating

Symbol	Parameter	Value	Units
T_{LST}	**Lead Soldering Temperature**	260 (10 sec.)	℃
T_{STG}	**Storage Temperature Range**	-55 to +150	℃
T_{OPT}	**Operating Temperature Range**	-55 to +150	℃
V_{ESD}	**ESD per IEC 61000-4-2(Air)** **ESD per IEC 61000-4-2 (Contact)**	±15 ±8	KV

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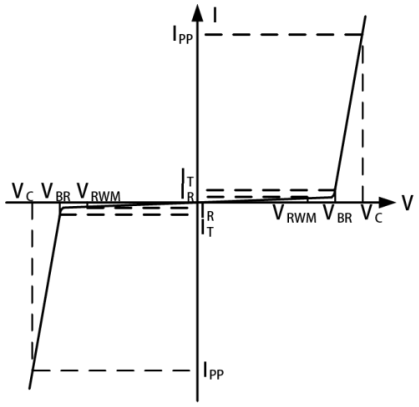
I-V Curve Characteristics

Symbol	Parameter
I_{PP}	Maximum 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



Bi-Directional TVS

Electrical Characteristics (@ T_A=25℃ Unless Otherwise Specified)

Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}	--	--	--	7	V
I_R	V_{RWM}=7V, T=25℃	--	--	0.5	μA
V_{BR}	I_T = 1mA	7.8	--	9.5	V
V_C	I_{PP}=1A, t_p=8/20μs	--	--	10	V
V_C	I_{PP}=5A, t_p=8/20μs	--	--	16	V
C_J	V_R=0V, f=1MHz	--	17	--	pF

Characteristic Curves

Fig1. Pulse Waveform

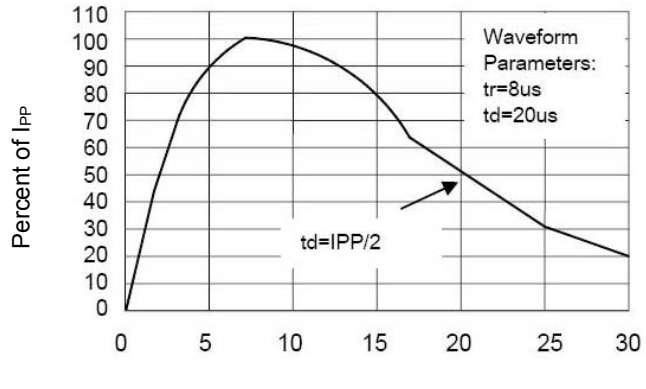
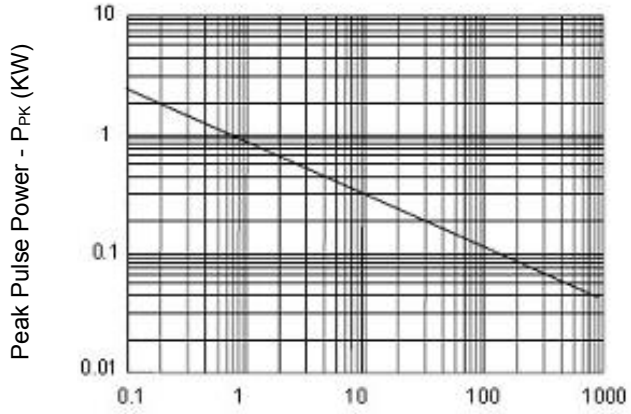


Fig2. Non-Repetitive Peak Pulse Power vs. Pulse Time



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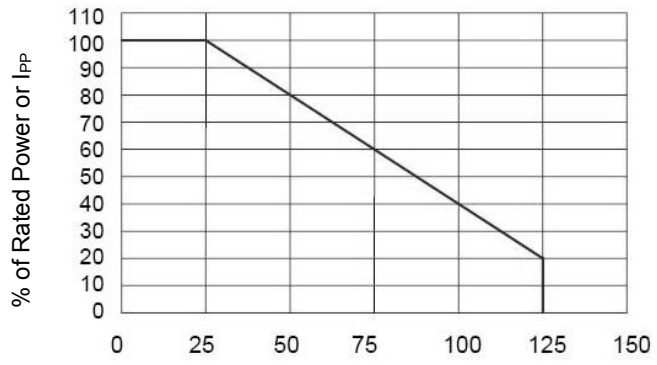
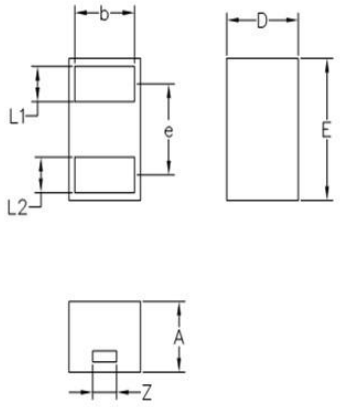
Characteristic Curves (Continue)

Fig3. Power Derating Curve

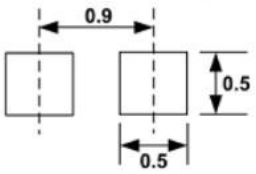


DFN1006-2L Package Outline & Dimensions (Unit: mm)



Symbol	Min	Nom	Max
D	0.55	0.60	0.65
E	0.95	1.00	1.05
L1	0.20	0.25	0.30
L2	0.20	0.25	0.30
A	0.45	0.50	0.55
Z	0.15	0.20	0.25
b	0.45	0.50	0.55
e	--	0.64 BSC	--

Dimension: Millimeter
(Stencil thickness: 0.1)



Soldering Footprint