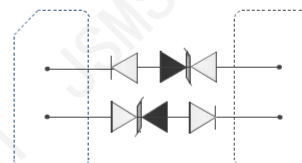
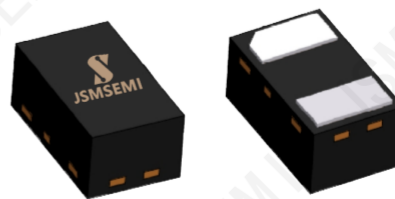


Features

- 120 Watts peak pulse power($t_p=8/20\mu s$)
- Tiny DFN1006 package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance($C_j=0.7pF_{typ.}$)
- Protection one data/power line
- IEC 61000-4-2 $\pm 30kV$ contact $\pm 30kV$ air
- 1.2/50 μs 12ohm 2kV(GbEPHY side)
- 10/700 μs 40ohm 4kV(GbEPHY side)



DFN1006

Applications

- 10/100/100Ethernet
- Integrated Magnetics/RJ45 Connectors
- LAN/WAN Equipment
- Notebooks,Desktops,and Servers
- Portable Instrumentation

Mechanical Data

- DFN1006 package
- Molding compound flammability rating:
UL94V-0
- Packaging:Tape and Reel
- RoHS/WEEE Compliant

Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power($t_p=8/20\mu s$)	P_{PP}	120	Watts
Peak Pulse Current($t_p=8/20\mu s$)(note1)	I_{pp}	7	A
ESD per IEC61000-4-2(Air) ESD per IEC61000-4-2(Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10 seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to+125	$^{\circ}C$
Storage Temperature	T_{stg}	-55 to+125	$^{\circ}C$

Ordering information

Order number	Package	Operation Temperature Range	MSL Grade	Ship, Quantity	Green
PESD5V0X1BL,315-JSM	DFN1006	-55 to+125 $^{\circ}C$	3	T&R,10000	Rohs

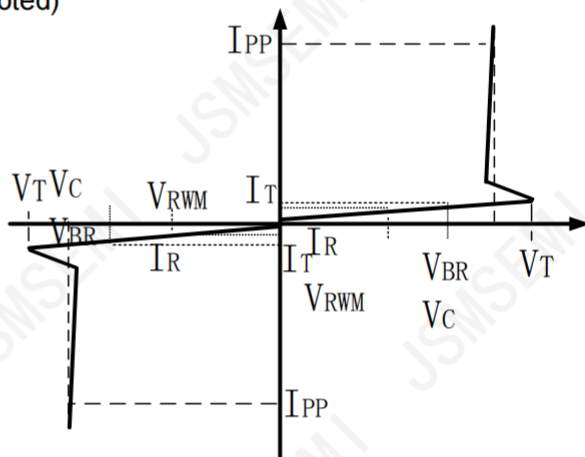
Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Trigger Voltage	V_T	$I_T=1mA$	7.5	8.4		V
Reverse Leakage Current	I_R	$V_{RWM}=5V, T=25^{\circ}C$		20	100	nA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			7	A
Clamping Voltage	V_C	$I_{PP}=7A, t_p=8/20\mu s$		16	20	V
Junction Capacitance	C_j	$V_R=0V, f=1MHz$		0.7	0.8	pF

Electrical Parameters($T_A=25^{\circ}C$ 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_T	Trigger Voltage@ I_T
I_T	Test Current

Note: .8/20 μs pulse waveform.



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

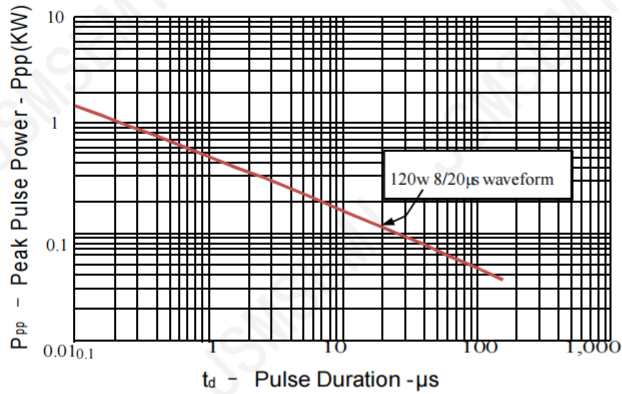


Figure 2: Power Derating Curve

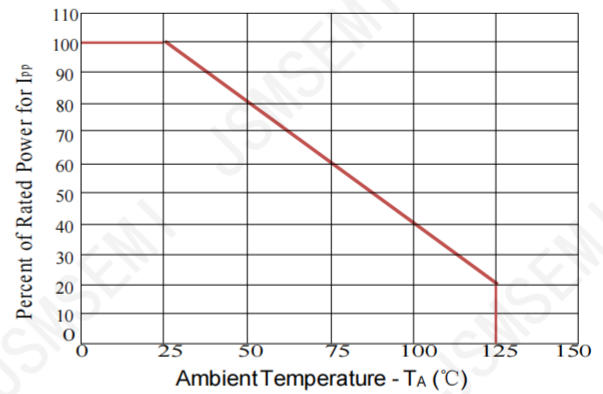


Figure3: Pulse Waveform

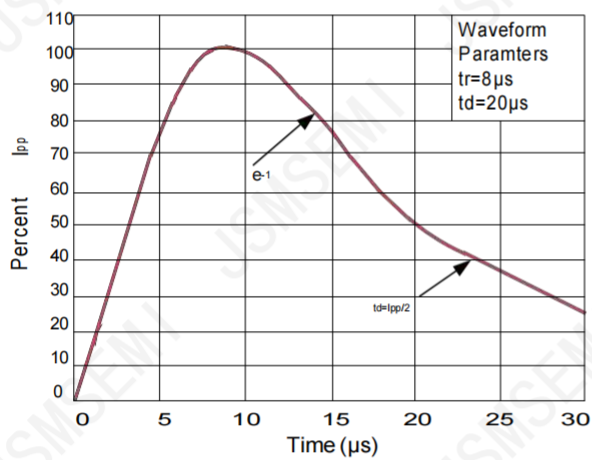
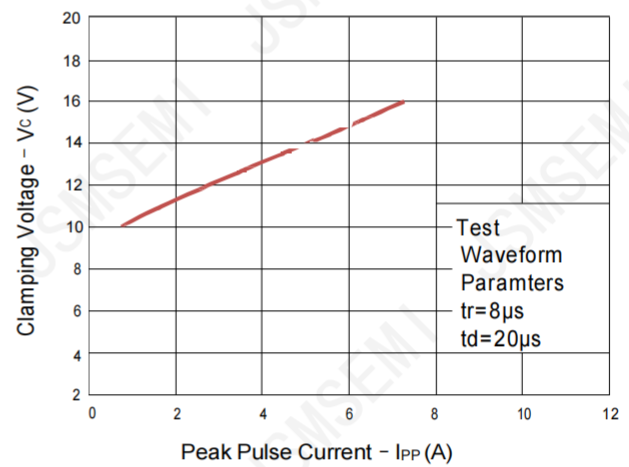
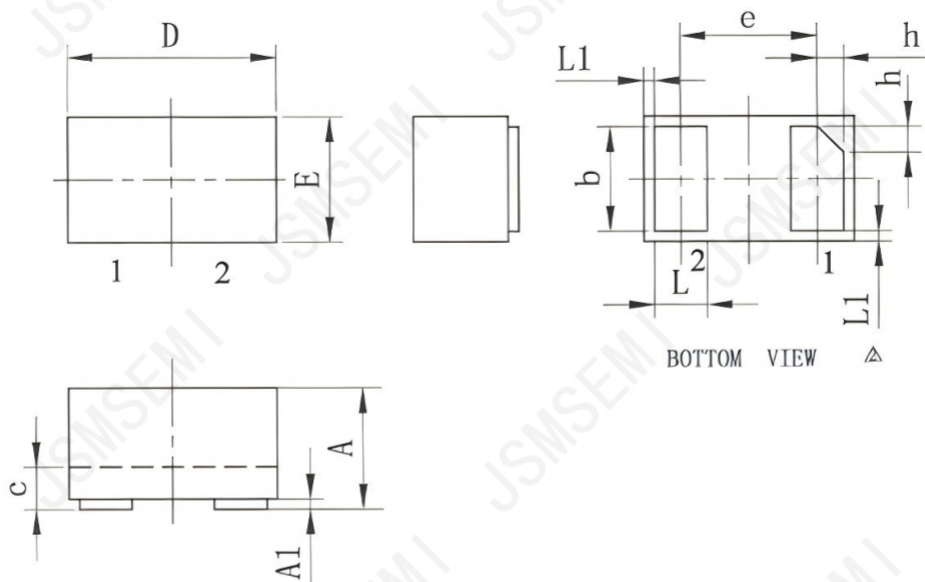


Figure 4: Clamping Voltage vs. Ipp



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 (mm)	20*20		

Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

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