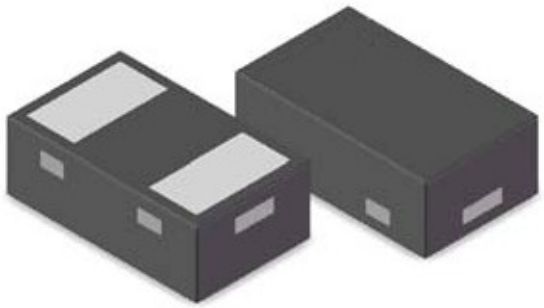
PESD5V0S1BLN

Transinet Voltage Suppression Diode

»Features

- 100Watts peak pulse power (tp = 8/20μs)
- Tiny DFN1006 package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- IEC 61000-4-2 ±30kV contact ±30kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 8A (8/20μs)



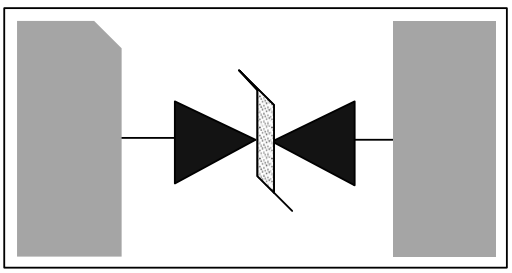
»Applications

- Cell Phone Handsets and Accessories
- 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

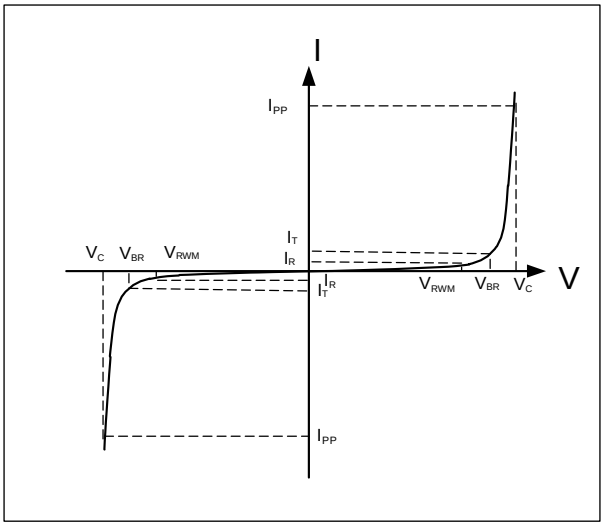
Rating	Symbol	Value	Units
Peak Pulse Power (t_p =8/20μs)	P_{PP}	100	Watts
Peak Pulse Current (t_p =8/20μs) (note1)	I_{pp}	8	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	30 30	kV
Lead Soldering Temperature	T_L	260(10seconds)	℃
Junction Temperature	T_J	-55 to + 125	℃
Storage Temperature	T_{stg}	-55 to + 125	℃

»Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6.5			V
Reverse Leakage Current	I_R	V_{RWM}=5V,T=25℃		0.1	0.5	μA
Peak Pulse Current	I_{PP}	tp =8/20μs		8		A
Clamping Voltage	V_C	I_{PP}=8A,t_p=8/20μs		12		V
Junction Capacitance	C_j	V_R = 0V, f = 1MHz		18	23	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:. 8/20μs pulse waveform.

»Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

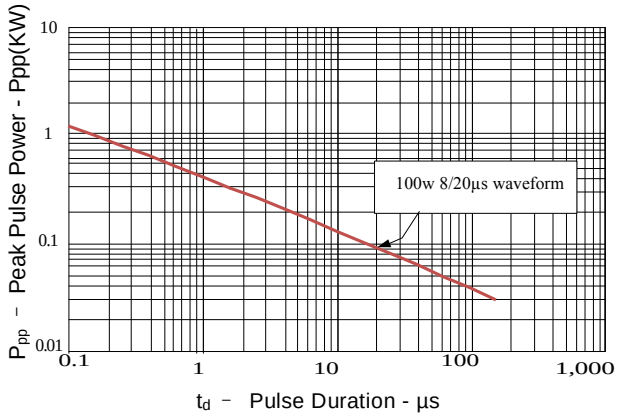


Figure 2: Power Derating Curve

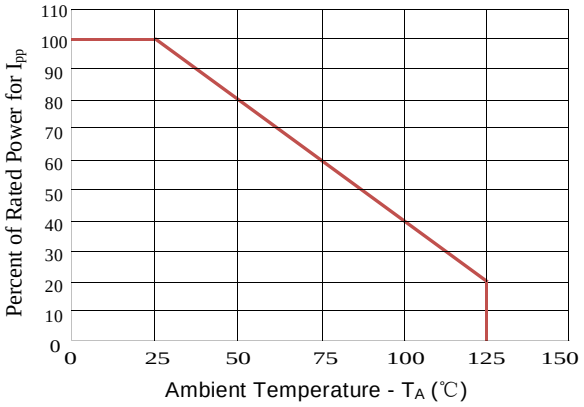


Figure3: Pulse Waveform

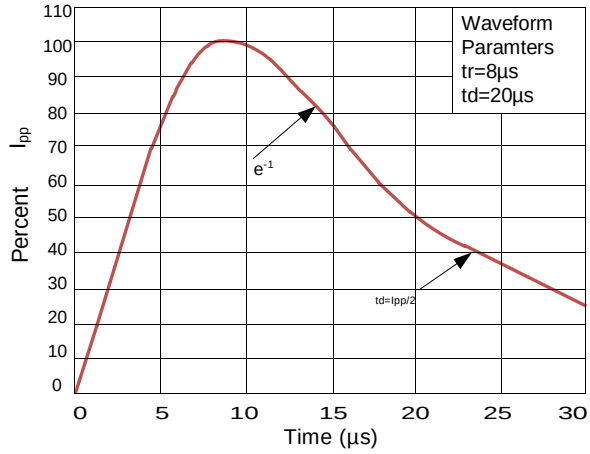
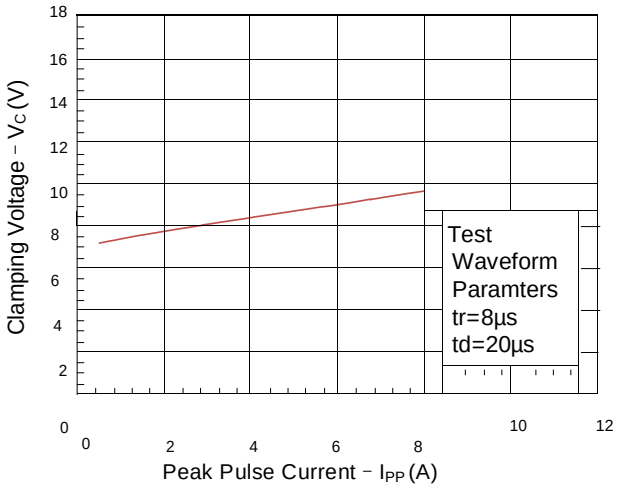
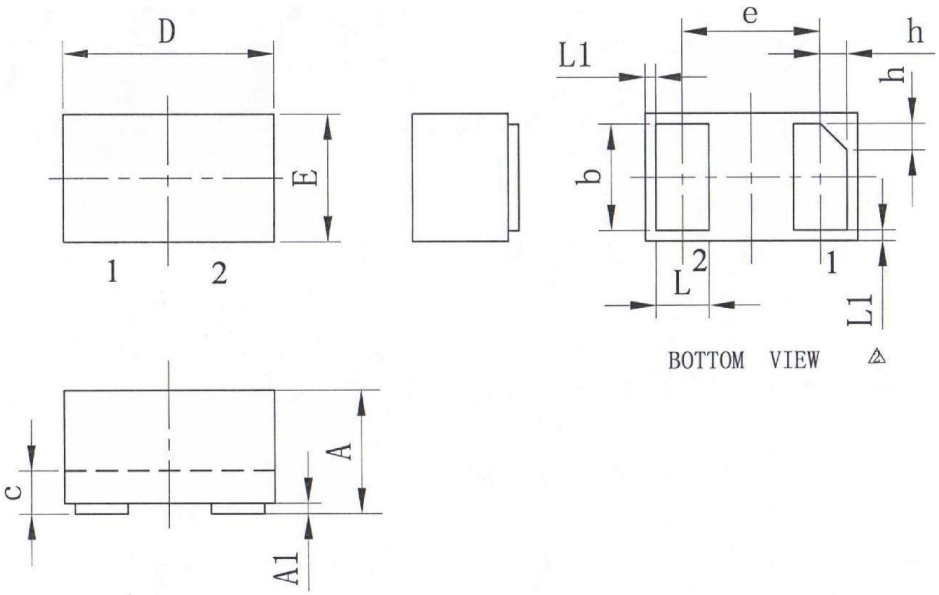


Figure 4: Clamping Voltage vs.Ipp



»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 (Mil)	20*20		

»Marking



»Ordering information

Order code	Package	Base qty	Delivery mode
PESD5V0S1BLN	DFN1006	10k	Tape and reel

Unikeyic Electronics

Global Electronic Components Distributor

Click to view pricing, inventory, delivery, and lifecycle information:

BORN:

1.5SMBJ40CA GBJ1510 MMBZ39VCLT1G-N BAT46X BSD3A241V ESDA14V2L BDFN2C031V BSD3C031LX SM24CANB-02HTG-N BN5A181V45 BSD9C051V PESD15VL1BA-N S8550 P4SMA6.8CA 1.0SMBJ6.5A 1.5SMBJ18CA 5.0SMDJ15CA BC858B BDFN1C031V SMFJ170A 1N4148WT BM3134E BST23A052U MMBZ27VCLT1G-N SMD2920-400/30N GBLC03C-N BML6401 BSD3A031V BWF102N PSD24-N