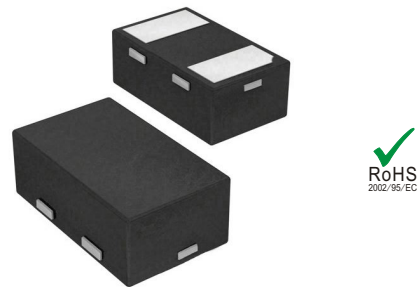


Features

- 100Watts peak pulse power ($t_p = 8/20\mu s$)
- Tiny DFN1006-2L package
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j = 0.2pF$ typ.)



DFN1006-2L

IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 $\pm 10kV$ contact $\pm 15kV$ air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20 μs)

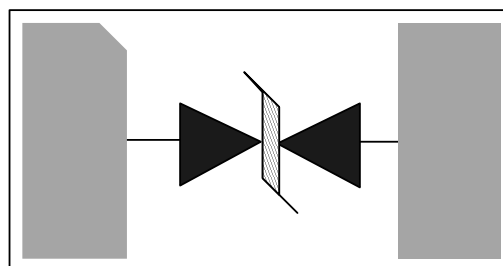
Applications

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

Mechanical Characteristics

- DFN1006-2L package
- Molding compound flammability rating:
UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration



DFN1006-2L

Absolute Maximum Rating

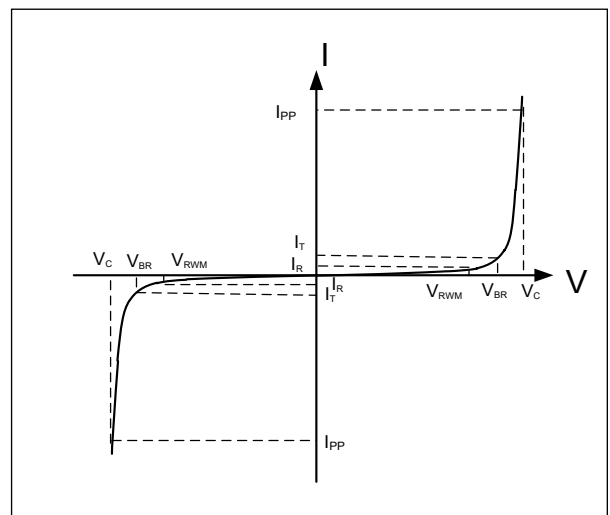
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	100	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	5	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 10	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T = 1mA$	6.0	7.5		V
Reverse Leakage Current	I_R	$V_{RWM} = 5V, T = 25^\circ C$		0.1	0.5	μA
Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$			5	A
Clamping Voltage	V_C	$I_{PP} = 5A, t_p = 8/20\mu s$			20.5	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		0.2	0.26	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 Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

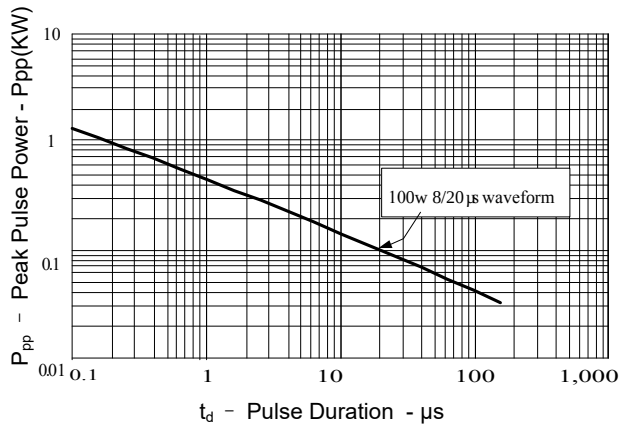


Figure 2: Power Derating Curve

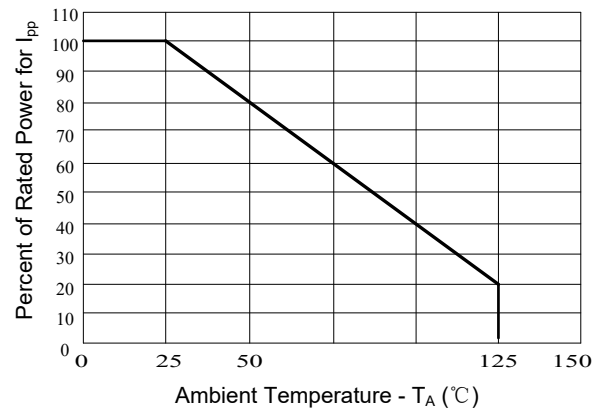


Figure3: Pulse Waveform

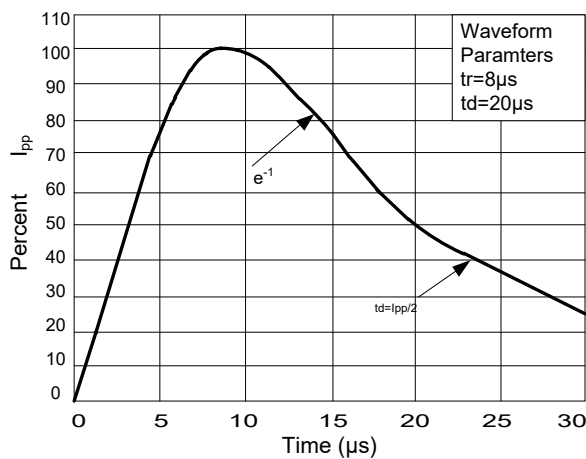
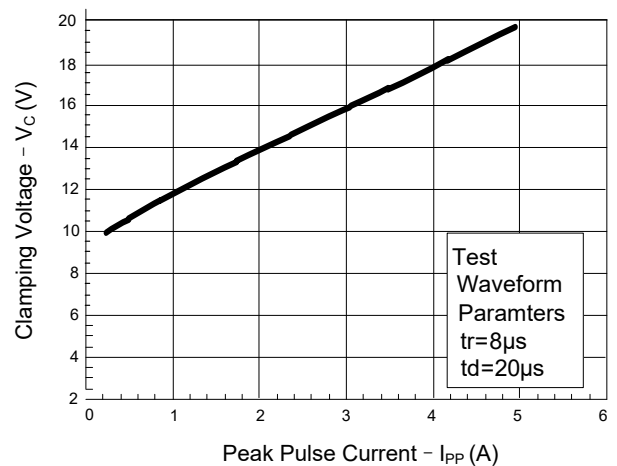
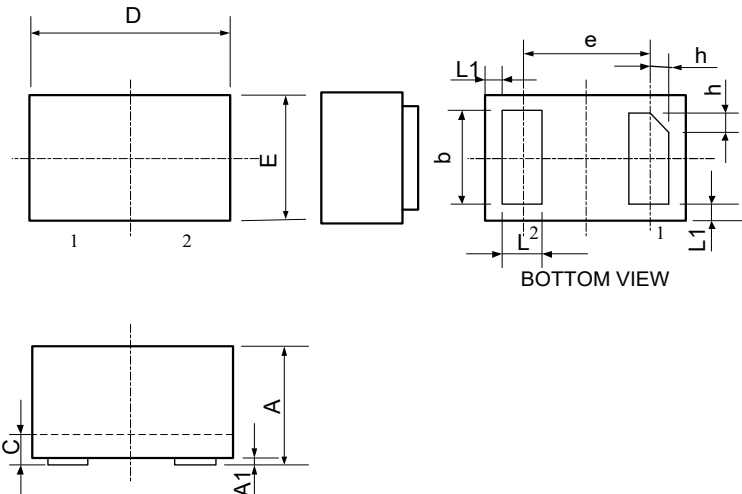
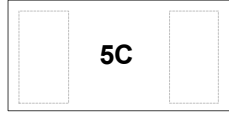


Figure 4: Clamping Voltage vs. I_pp



Outline Drawing

PACKAGE OUTLINE		Marking		
				
SYM	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	

Ordering information

Order code	Package	Base qty	Delivery mode
PTN102U02M5B10	DFN1006-2L	10k	Tape and reel