

OM SENI

H3V3U10B

Bi-directional 3.3V Ultra Small Capacitance

DFN1006-2L Plastic-Encapsulate ESD Protection Diodes

Features

- Low leakage current
- Low clamping voltage
- IEC 61000-4-2 (ESD Air): $\pm 25\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 20\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 5A

Applications

- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation, Digital Cameras
- Peripherals, Audio Players, Industrial Equipment

Function Diagram



Reverse Working Voltage
3.3V Max.
Ultra Small Capacitance
0.3pF(Max.)

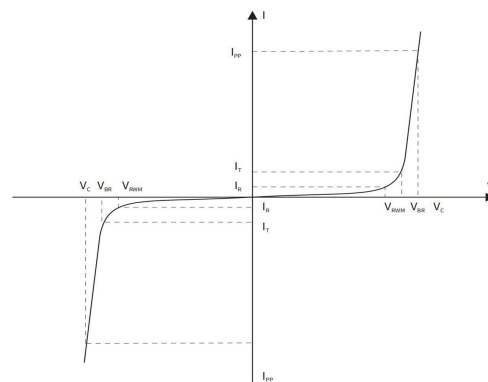


Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{ESD}	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2(Air)	± 25	KV
		ESD per IEC 61000-4-2(Contact)	± 20	KV
P_{PP}	Peak Pulse Power	$t_p = 8/20 \mu\text{s}$	125	W
I_{PP}	Rated Peak Pulse Current	$t_p = 8/20 \mu\text{s}$	5	A
T_J	Operating Junction Temperature Range	—	-55 to +125	°C
T_{STG}	Operating Junction Temperature Range	—	-55 to +150	°C

Electrical Parameter

SYMBOL	PARAMETER
V_C	Clamping Voltage @ I_{PP}
V_{BR}	Breakdown Voltage @ I_T
I_{PP}	Peak Pulse Current
I_T	Test Current
I_R	Reverse Leakage Current @ VRWM
V_{RWM}	Peak Reverse Working Voltage
P_{PP}	Peak Pulse Power Dissipation
C_J	Junction Capacitance @ $V_R=0\text{V}, f=1\text{MHz}$
I_F	Forward Current
V_F	Forward Voltage @ I_F

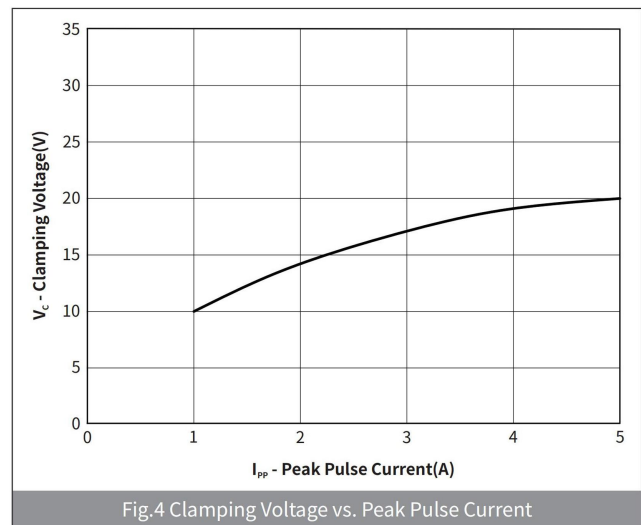
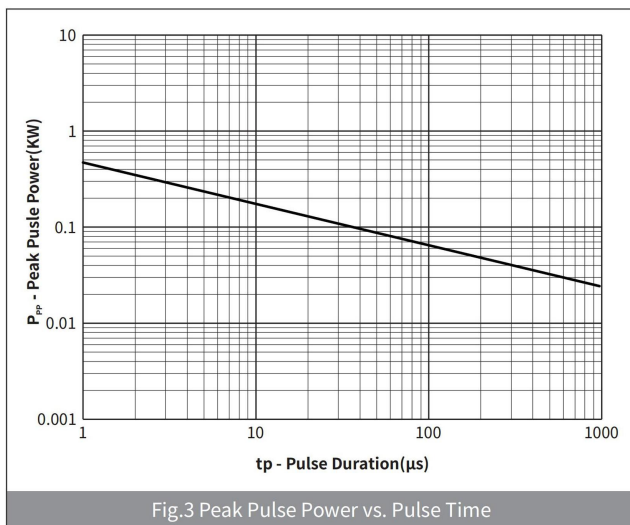
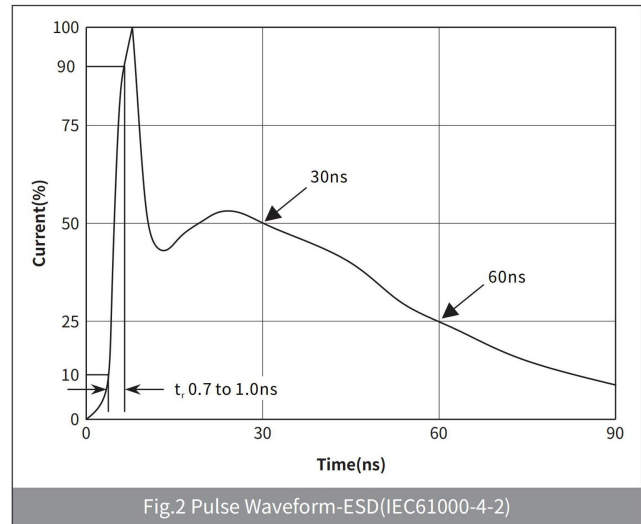
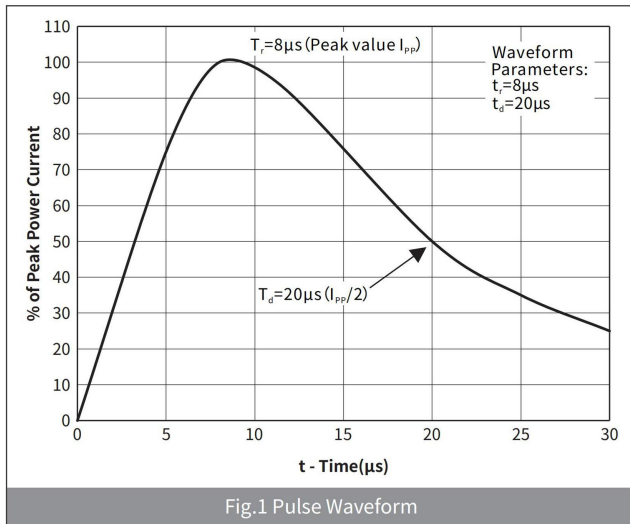


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Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^\circ\text{C}$	—	—	3.3	V
Breakdown Voltage	V_{BR}	$I_T=1.0\text{mA}, T_a=25^\circ\text{C}$	5	—	9	V
Reverse Leakage Current	I_R	$V_{RWM}=3.3\text{V}, T_a=25^\circ\text{C}$	—	—	0.2	μA
Clamping Voltage	V_C	$I_{PP}=1.0\text{A}, t_p=8/20\mu\text{s}$	—	—	11	V
		$I_{PP}=5.0\text{A}, t_p=8/20\mu\text{s}$	—	—	25	
Junction Capacitance	C_J	$V_{RWM}=0\text{V}, f=1\text{MHz}$	—	0.25	0.3	pF

Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

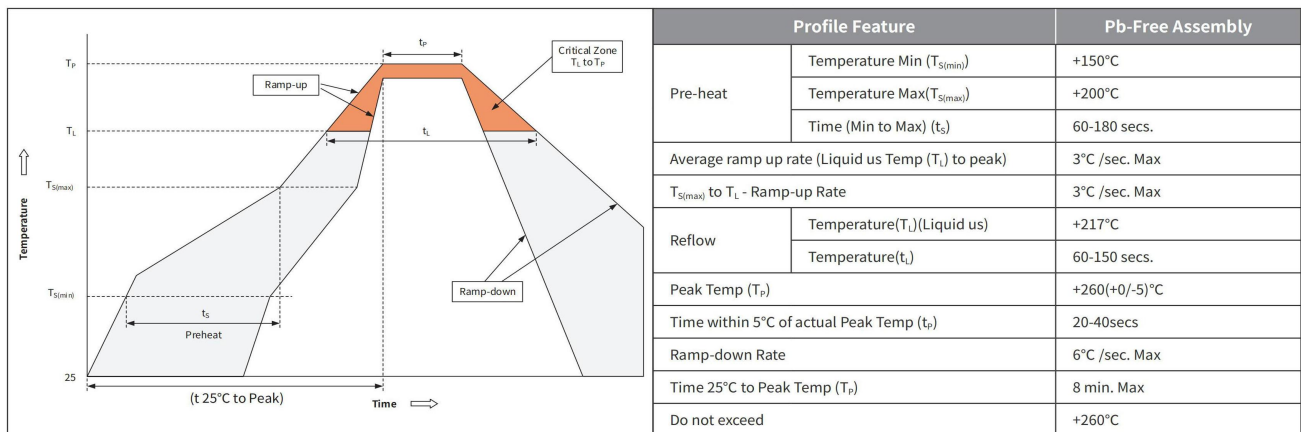


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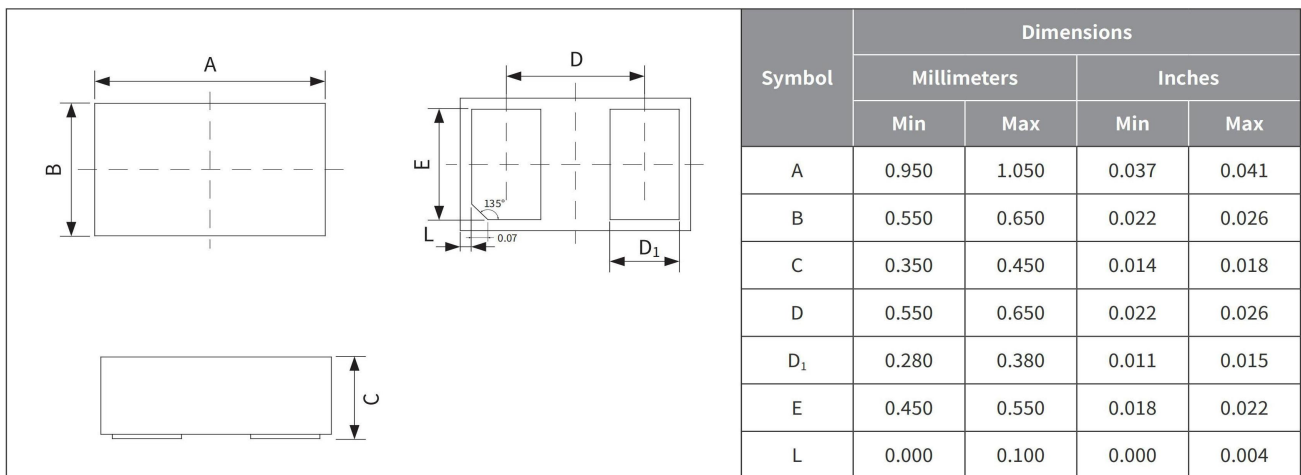
Ordering Information

PREFERRED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
	DFN1006-2L	1.00×0.60×0.37	7" REEL	10,000

Recommended Soldering Conditions



Package Outline Dimensions (DFN1006-2L)



Suggested Pad Layout

