

OM SENI**H4V5N10B**

Bi-directional 4.5V Normal Capacitance ESD

DFN1006-2L Plastic-Encapsulate ESD Protection Diodes**Features**

- Low leakage current
- Low clamping voltage
- IEC 61000-4-2 (ESD Air): $\pm 30\text{kV}$
- IEC 61000-4-2 (ESD Contact): $\pm 30\text{kV}$
- IEC 61000-4-5 (Lightning 8/20 μs): 45A

Applications

- Cellular Handsets and Accessories
- Notebooks and Handhelds, Audio Players, Peripherals
- Personal Digital Assistants, Portable Instrumentation
- Keypads, Side Keys, LCD Displays

Function Diagram

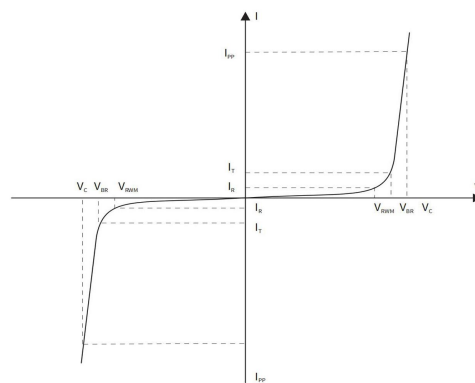
Reverse Working Voltage
4.5V Max.
Normal Capacitance
60pF(Typ.)

**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)	± 30	KV
		ESD per IEC 61000-4-2(Contact)	± 30	KV
P_{PP}	Peak Pulse Power	$t_p = 8/20 \mu\text{s}$	560	W
I_{PP}	Rated Peak Pulse Current	$t_p = 8/20 \mu\text{s}$	45	A
T_j	Operating JunctionTemperature Range	—	-55 to +125	°C
T_{STG}	Operating JunctionTemperature 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

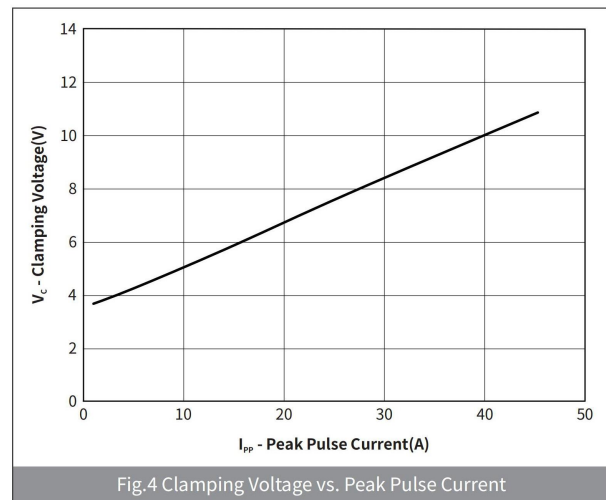
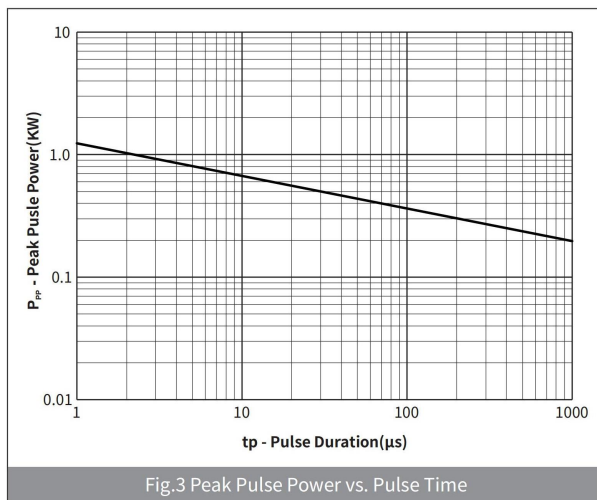
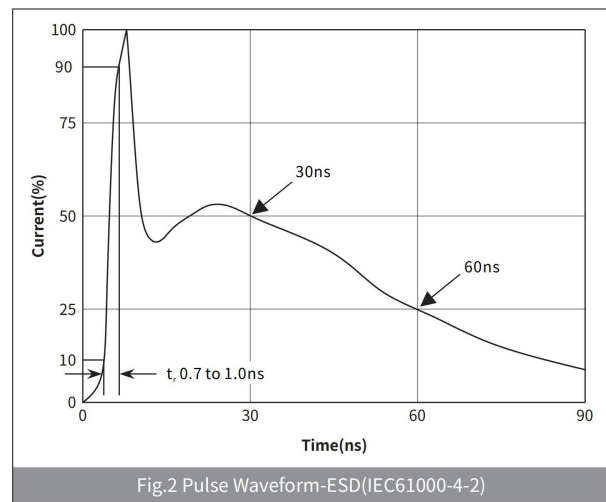
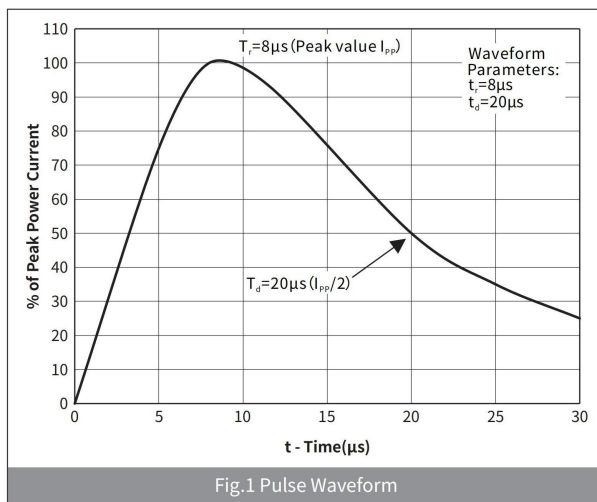


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Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^\circ\text{C}$	—	—	4.5	V
Breakdown Voltage	V_{BR}	$I_R=1.0\text{mA}, T_a=25^\circ\text{C}$	4.8	—	7.5	V
Reverse Leakage Current	I_R	$V_{RWM}=4.5\text{V}, T_a=25^\circ\text{C}$	—	—	0.1	μA
Clamping Voltage	V_C	$I_{PP}=1.0\text{A}, t_p=8/20\mu\text{s}$	—	—	6.5	V
		$I_{PP}=20\text{A}, t_p=8/20\mu\text{s}$	—	—	7.5	
		$I_{PP}=28\text{A}, t_p=8/20\mu\text{s}$	—	—	10	
		$I_{PP}=45\text{A}, t_p=8/20\mu\text{s}$	—	—	11	
Junction Capacitance	C_J	$V_{RWM}=0\text{V}, f=1\text{MHz}$	—	60	100	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

