

DFN1006-2L Plastic-Encapsulate ESD Protection Diodes

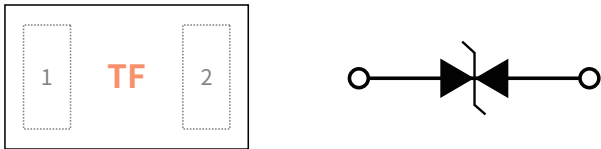
Features

- Low leakage current
- DFN1006-2L surface mount package
- IEC 61000-4-2 (ESD Air): ±20kV
- IEC 61000-4-2 (ESD Contact): ±15kV
- IEC 61000-4-5 (Lightning 8/20μs): 7A

Applications

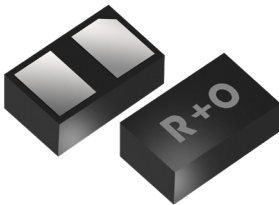
- Cellular Handsets and Accessories
- Personal Digital Assistants
- Notebooks and Handhelds
- Portable Instrumentation, Digital Cameras
- Peripherals, Audio Players, Industrial Equipment

Function Diagram



Reverse Working Voltage
18V Max.
Low capacitance
0.65pF(Typ)

DFN1006-2L

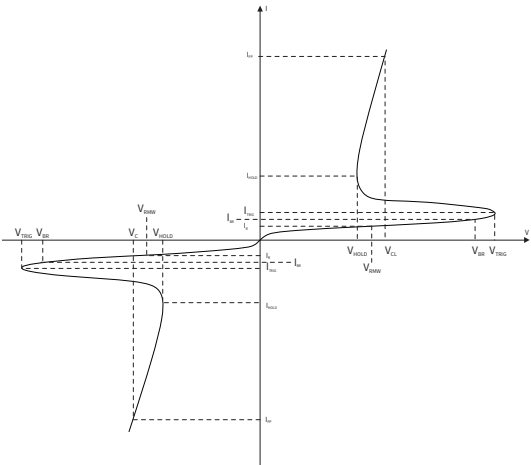


Maximum Ratings (Ta=25°C Unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{ESD}	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2(Air)	±20	KV
		ESD per IEC 61000-4-2(Contact)	±15	KV
P _{PP}	Peak Pulse Power	tp = 8/20 μs	56	W
I _{PP}	Rated Peak Pulse Current	tp = 8/20 μs	7.0	A
T _J	Operating JunctionTemperature Range	—	-55 to +125	°C
T _{STG}	Operating JunctionTemperature Range	—	-55 to +125	°C

Electrical Parameter

SYMBOL	PARAMETER
I _{PP}	Peak Pulse Current @8/20μs
V _C	Clamping Voltage @ I _{PP}
I _{BR} / I _T	Test Current
V _{BR}	Breakdown Voltage @ I _T
V _{RWM}	Peak Reverse Working Voltage
I _R	Reverse Leakage Current @ V _{RWM}
I _{TRIG}	Reverse Trigger Current
V _{TRIG}	Reverse Trigger Voltage
I _{HOLD}	Reverse Holding Current
V _{HOLD}	Reverse Holding Voltage
P _{PP}	Peak Pulse Power Dissipation



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

PARAMETER	SYMBOL	CONDITION	Min	Typ	Max	UNIT
Peak Reverse Working Voltage	V_{RWM}	$T_a=25^{\circ}C$	—	—	18	V
Breakdown Voltage	V_{BR}	$I_R=1mA, T_a=25^{\circ}C$	19	20	—	V
Reverse Leakage Current	I_R	$V_R=18V, T_a=25^{\circ}C$	—	—	0.5	μA
Dynamic Resistance	R_{DYN}	$TLP=0.2/100ns$	—	0.38	—	Ω
Holding Voltage	V_H	$I_H=60mA$	2.0	—	—	V
Clamping Voltage	V_C	$I_{PP}=7A, t_p=8/20\mu s$	—	—	8.0	V
Junction Capacitance	C_J	$V_R=0V, f=1MHz$	—	0.65	—	pF

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

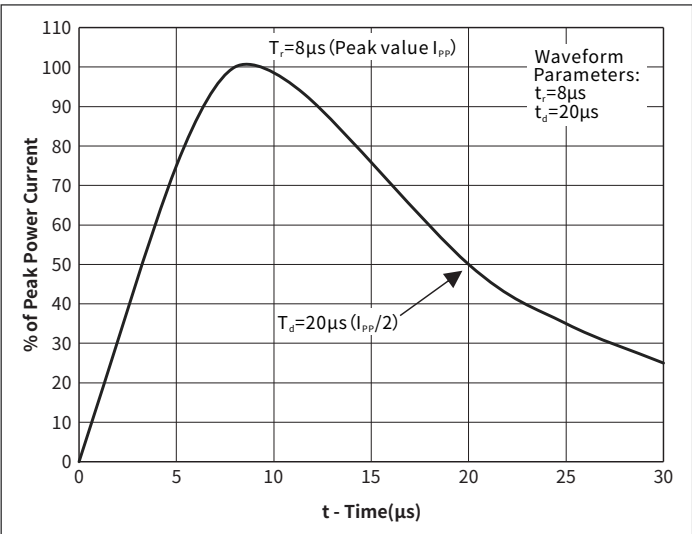


Fig.1 Pulse Waveform

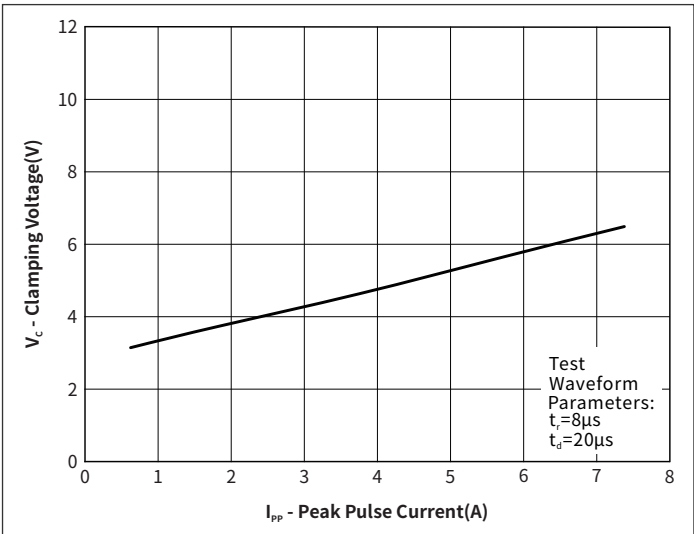


Fig.2 Clamping Voltage vs. Peak Pulse Current

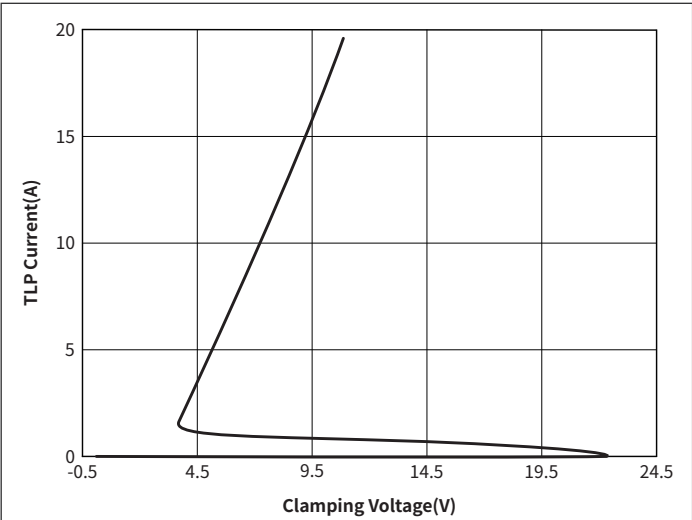


Fig.3 TLP IV Curve

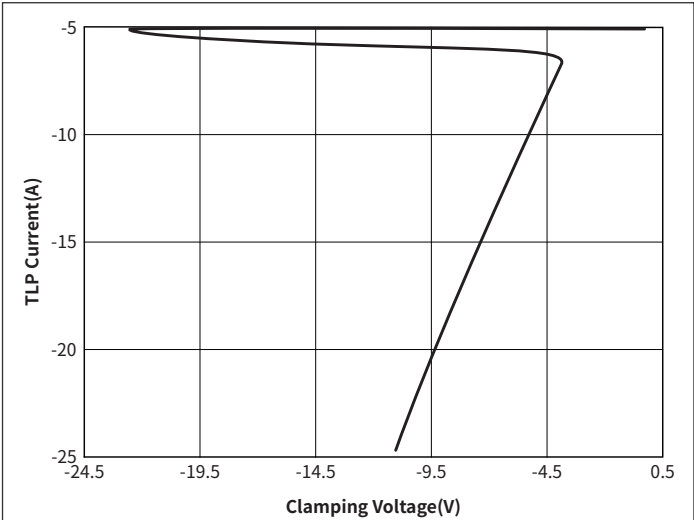


Fig.4 TLP IV Curve

H18VL10BS

Bi-directional 18V Low Capacitance ESD

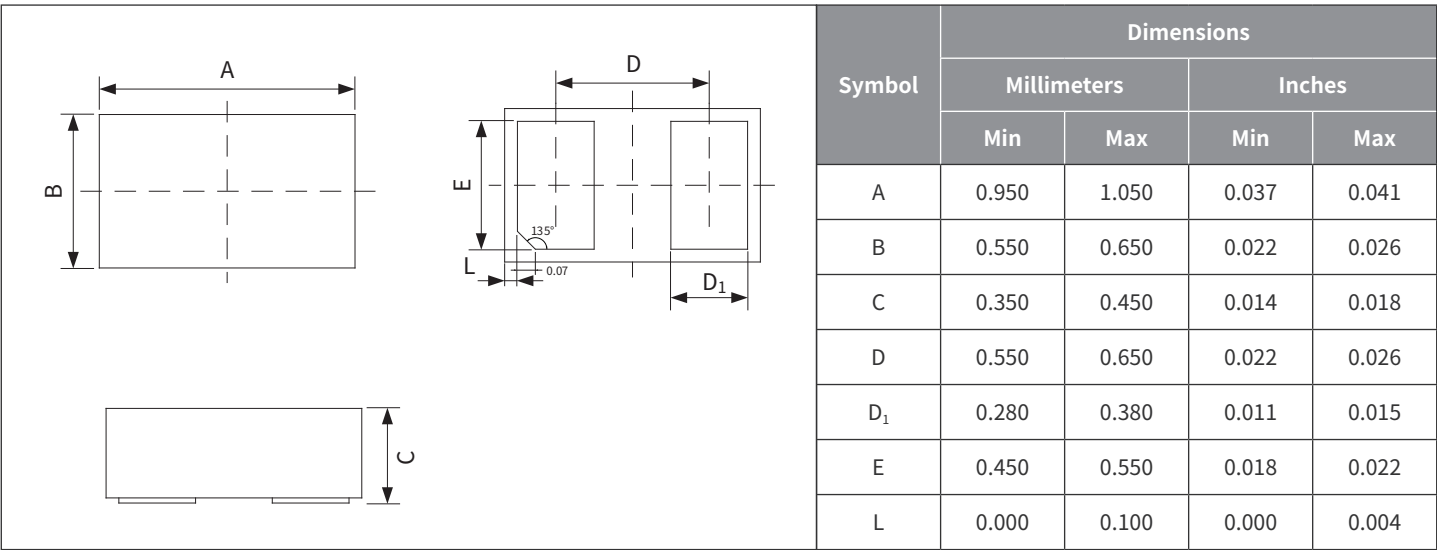
Ordering Information

PREFERED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H18VL10BS	DFN1006-2L	1.00×0.60×0.37	7" REEL	10,000

Recommended Soldering Conditions



Package Outline Dimensions (DFN1006-2L)



Suggested Pad Layout

