

## Features

- Low capacitance: 15pF(Typ.)
- Reverse Working Voltage: 5V
- Bi-directional protection
- DFN0603 surface mount package
- IEC 61000-4-2 (ESD Air):  $\pm 25$ kV
- IEC 61000-4-2 (ESD Contact):  $\pm 25$ kV
- IEC 61000-4-5 (Lightning 8/20 $\mu$ s): 5A

## Applications

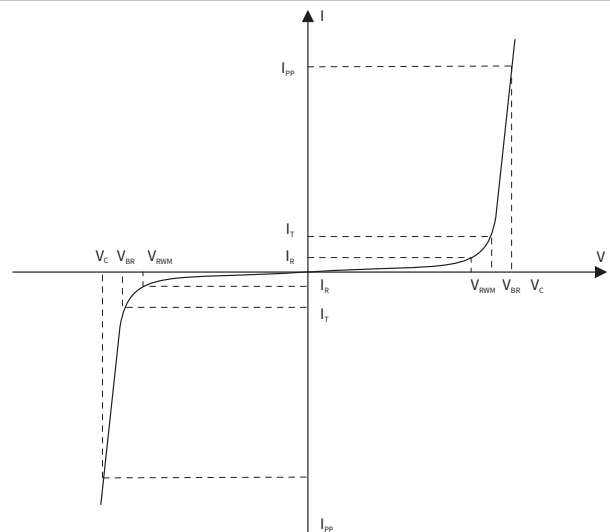
- Smart Phone and Tablet PC
- TV and Set Top Box
- Wearable Devices
- Digital cameras
- PADS

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

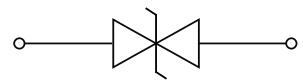
SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{ESD}$	Electrostatic Discharge Voltage	ESD per IEC 61000-4-2( Air )	$\pm 25$	KV
		ESD per IEC 61000-4-2( Contact )	$\pm 25$	KV
$P_{PP}$	Peak Pulse Power	$t_p = 8/20 \mu s$	50	W
$I_{PP}$	Rated Peak Pulse Current	$t_p = 8/20 \mu s$	5.0	A
$T_J$	Operating Junction Temperature Range	—	-55 to +125	°C
$T_{stg}$	Storage 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 @ $V_{RWM}$
$V_{RWM}$	Peak Reverse Working Voltage
$P_{PP}$	Peak Pulse Power Dissipation
$C_J$	Junction Capacitance @ $V_r=0V, f=1MHz$



## DFN1006

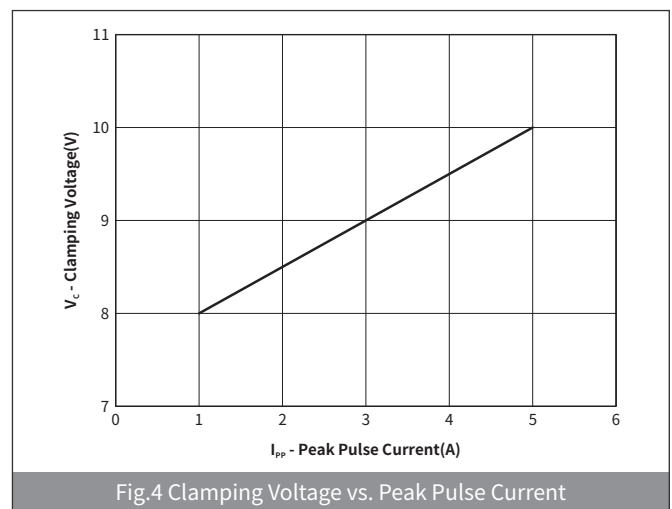
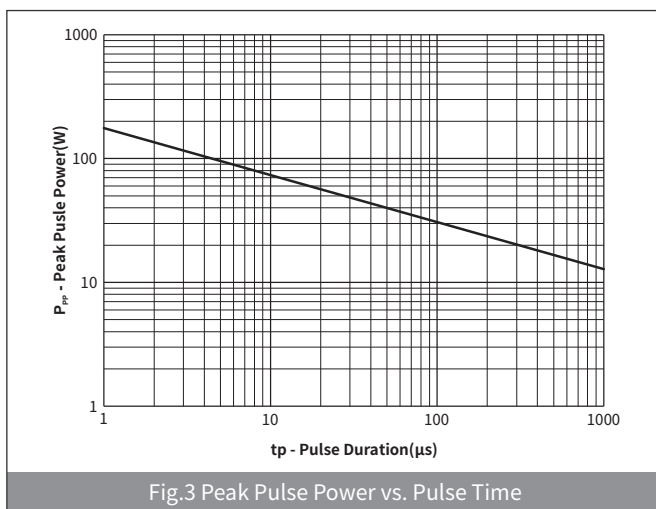
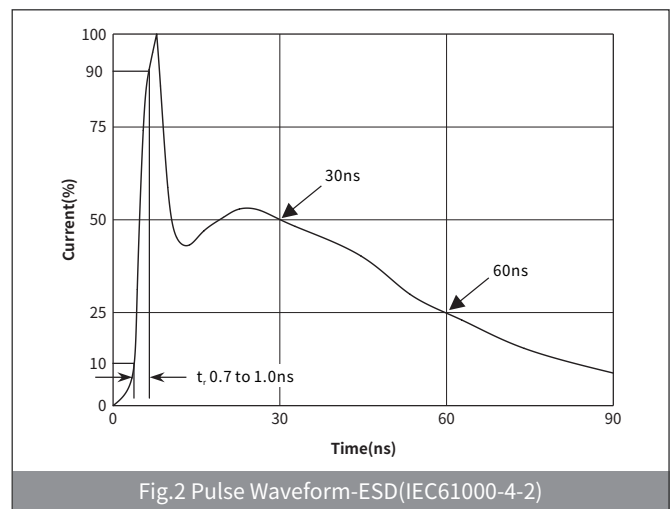
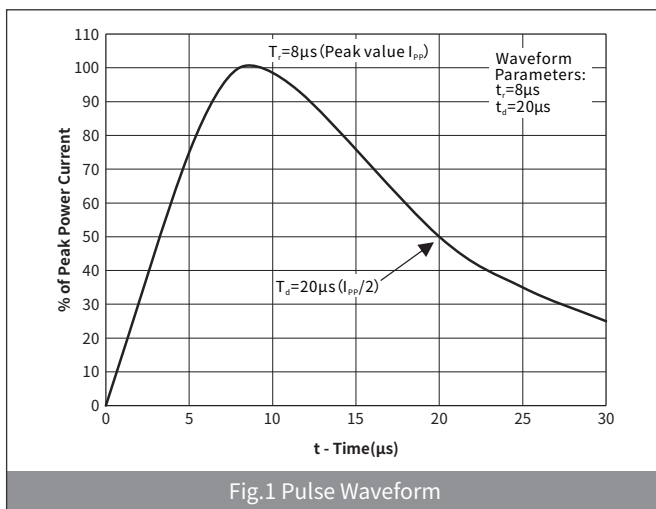


**Electrical Characteristics** ( $T_A=25^\circ\text{C}$  Unless otherwise specified)

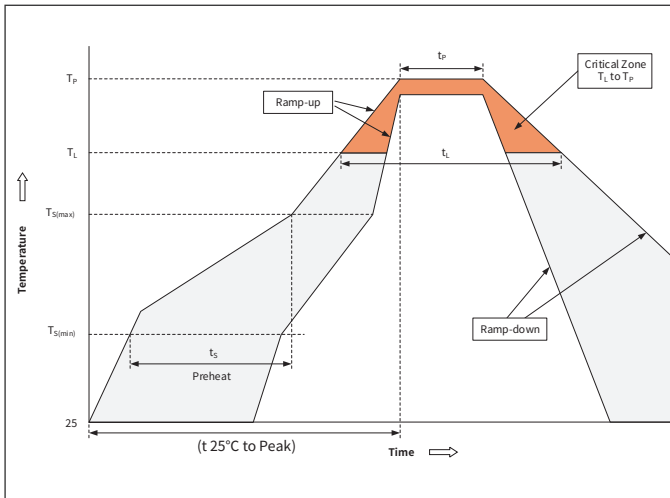
PARAMETER	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Reverse Working Voltage	$V_{RWM}$	$T_A=25^\circ\text{C}$	—	—	5.0	V
Breakdown Voltage	$V_{BR}$	$I_T=1\text{mA}; T_A=25^\circ\text{C}$	5.6	6.5	8.0	V
Reverse Leakage Current	$I_R$	$V_{RWM}=5.0\text{V}; T_A=25^\circ\text{C}$	—	—	0.1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP}=1.0\text{A}, t_p=8/20\mu\text{s}$	—	—	8.0	V
		$I_{PP}=5.0\text{A}, t_p=8/20\mu\text{s}$	—	—	10.0	V
Junction Capacitance	$C_J$	$V_R=0\text{V}, f=1\text{MHz}$	—	15	18	pF

**Ordering Information**

PREFERRED P/N	PACKAGE	SIZE(mm)	DELIVERY MODE	MPQ(PCS)
H5VL10B	DFN1006	1.00×0.60×0.37	7" REEL	10,000

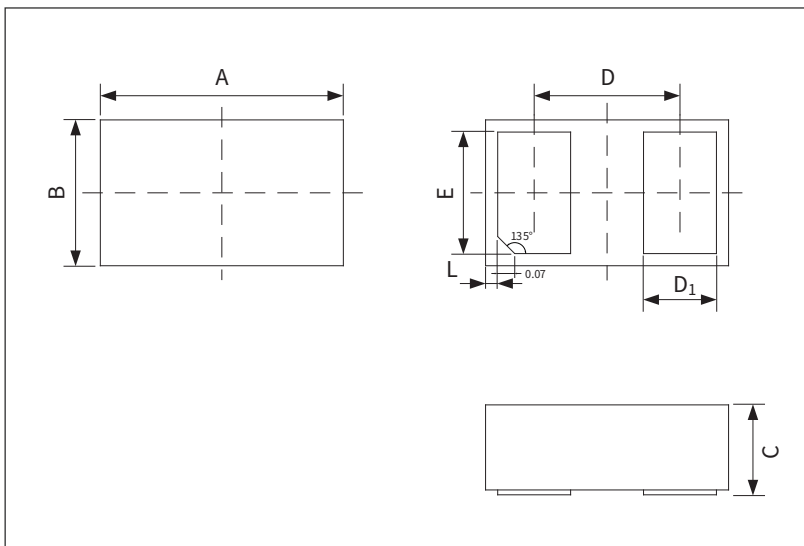
**Ratings And Characteristics Curves** ( $T_A=25^\circ\text{C}$  Unless otherwise specified)


### ► Recommended Soldering Conditions



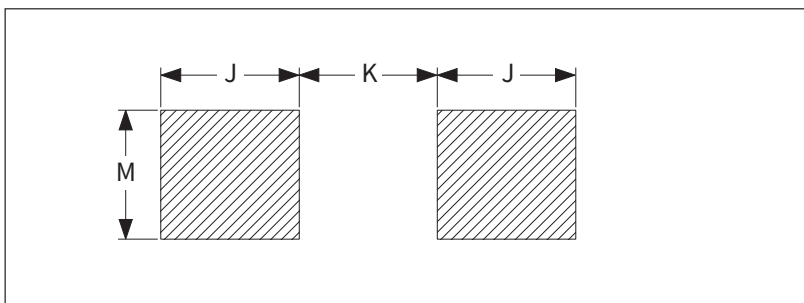
Profile Feature		Pb-Free Assembly
Pre-heat	Temperature Min ( $T_{S(min)}$ )	+150°C
	Temperature Max ( $T_{S(max)}$ )	+200°C
	Time (Min to Max) ( $t_5$ )	60-180 secs.
Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak)		3°C /sec. Max
$T_{S(max)}$ to $T_L$ - Ramp-up Rate		3°C /sec. Max
Reflow	Temperature ( $T_L$ ) (Liquid us)	+217°C
	Temperature ( $t_L$ )	60-150 secs.
Peak Temp ( $T_P$ )		+260(+0/-5)°C
Time within 5°C of actual Peak Temp ( $t_P$ )		30 secs. Max
Ramp-down Rate		6°C /sec. Max
Time 25°C to Peak Temp ( $T_P$ )		8 min. Max
Do not exceed		+260°C

### ► Package Outline Dimensions (DFN1006)



Symbol	Millimeters(mm)			
	Min.	Max.	Min.	Max.
A	0.950	1.050	0.037	0.041
B	0.550	0.650	0.022	0.026
C	0.350	0.450	0.014	0.018
D	0.550	0.650	0.022	0.026
D <sub>1</sub>	0.280	0.380	0.011	0.015
E	0.450	0.550	0.018	0.022
L	0.000	0.100	0.000	0.004

### ► Suggested Pad Layout



Symbol	Millimeters(mm)		
	Min.	Type.	Max.
J	0.55	—	—
K	0.28	0.30	0.32
M	0.60	—	—

Note :

This soldering footprint is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

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