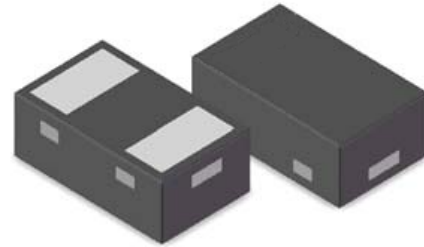


## Features

- 2-pin lead-less package
- Low junction capacitance (Typical value: 15pF)
- Peak Pulse Current (8/20 $\mu$ s) MAX : 8A
- Low Clamping Voltage
- Low leakage current
- Working voltages : 5V
- RoHS Compliant



**DFN0603**

## IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm$ 30kV contact  $\pm$ 30kV air
- IEC 61000-4-5 (Lightning) 8A (8/20 $\mu$ s)

## Applications

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

## Mechanical Characteristics

- Package: DFN0603-2L
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

## Schematic & PIN Configuration



Bi-directional

**Absolute Maximum Ratings** (TA = 25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power ( t <sub>p</sub> =8/20μs waveform)	P <sub>PPP</sub>	100	W
Peak Pulse Current (8/20μs)	I <sub>PP</sub>	8	A
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

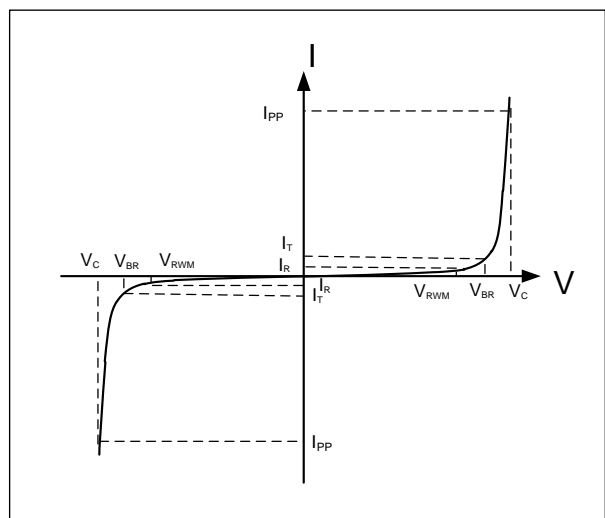
**Electrical Characteristics** (TA = 25°C, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V <sub>RWM</sub>				5	V
Breakdown Voltage	V <sub>BR</sub>	I <sub>R</sub> = 1mA	5.6		9	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> = 5.0V			0.5	μA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> = 1A (8 x 20μs pulse)			7.5	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> = 8A (8 x 20μs pulse)			12.5	V
Junction Capacitance	C <sub>J</sub>	V <sub>R</sub> = 0V, f = 1MHz		15	22	pF

**Electrical Parameters** (TA = 25°C unless otherwise noted)

Symbol	Parameter
I <sub>PP</sub>	Maximum Reverse Peak Pulse Current
V <sub>C</sub>	Clamping Voltage @ I <sub>PP</sub>
V <sub>RWM</sub>	Working Peak Reverse Voltage
I <sub>R</sub>	Maximum Reverse Leakage Current @ V <sub>RWM</sub>
V <sub>BR</sub>	Breakdown Voltage @ I <sub>T</sub>
I <sub>T</sub>	Test Current

Note.: 8/20μs pulse waveform.



## Typical Performance Characteristics

FIG1: Power rating derating curve

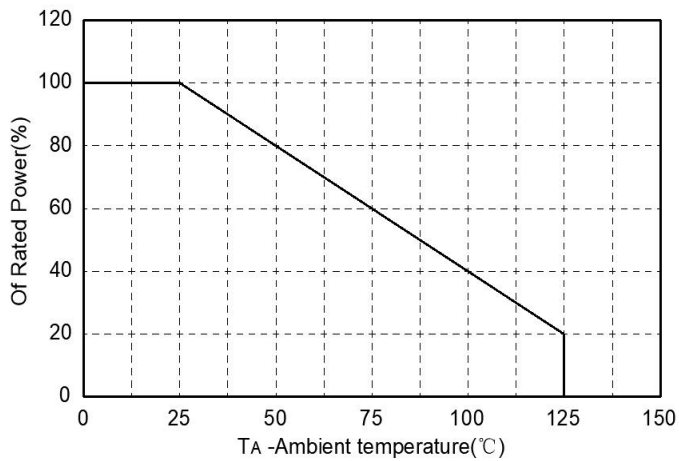


FIG2: pulse Waveform

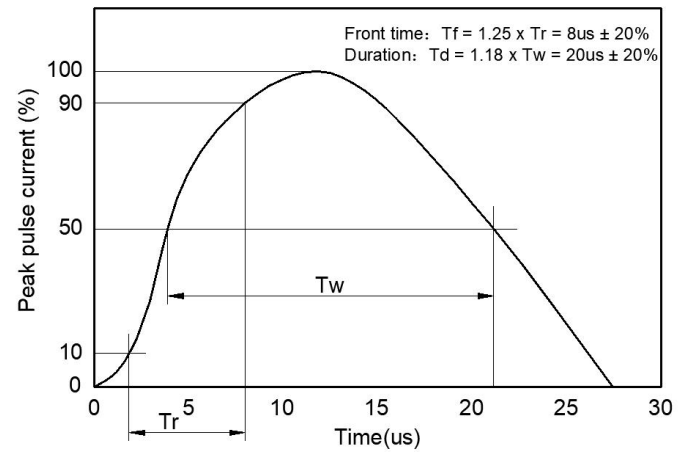


FIG3: Capacitance between terminals characteristics

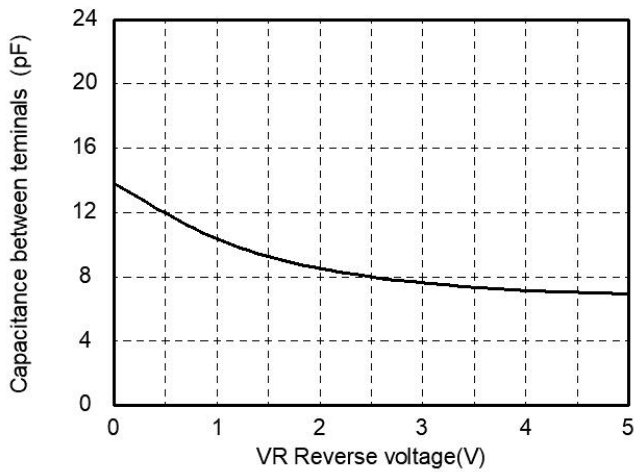
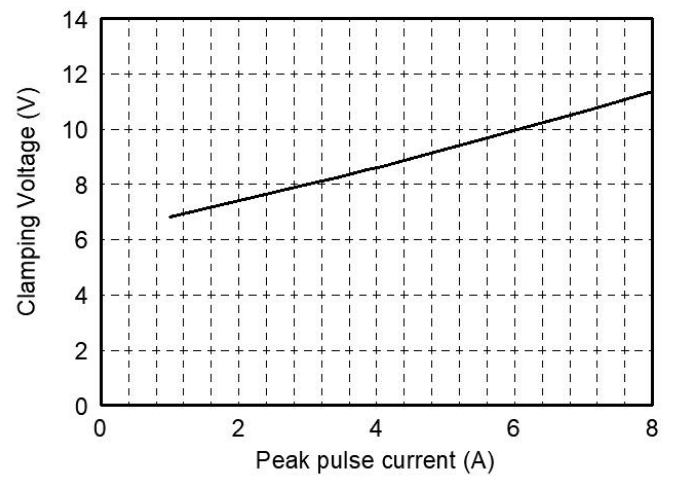
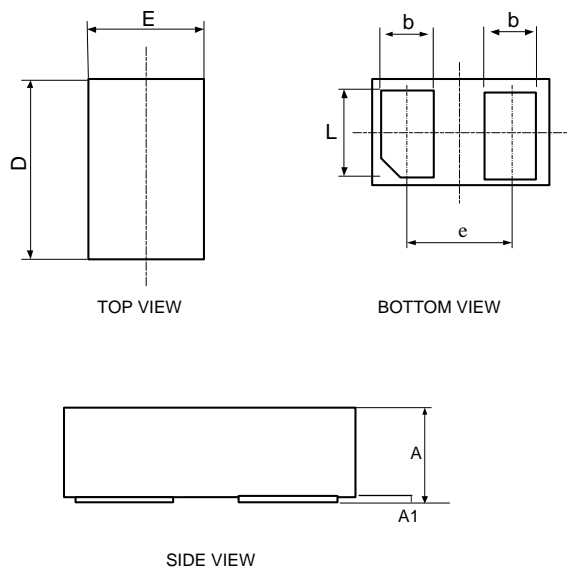


FIG4: Clamping Voltage vs. Peak Pulse Current

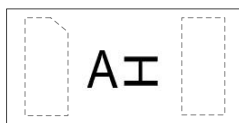


## Outline Drawing – DFN0603



Symbol	Dimensions in millimeters	
	Min	Max
A	0.27	0.37
A1	0.00	0.05
e	(0.4)	
D	0.55	0.65
E	0.25	0.36
b	0.09	0.20
L	0.17	0.25

## Marking



A I=Marking Code

## Ordering Information

Order code	Package	Base qty	Delivery mode
PTN062G22S5B10	DFN0603	15K	Tape and reel