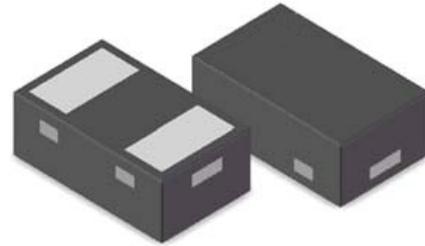


## Features

- Ultra Small Package: 0.6X0.3X0.3mm
- Working Voltage: 5.0V
- Low Clamping Voltage
- 2-pin Leadless Package
- RoHS Compliant



**DFN0603**

## IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 15\text{kV}$  contact  $\pm 20\text{kV}$  air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 8A (8/20 $\mu\text{s}$ )

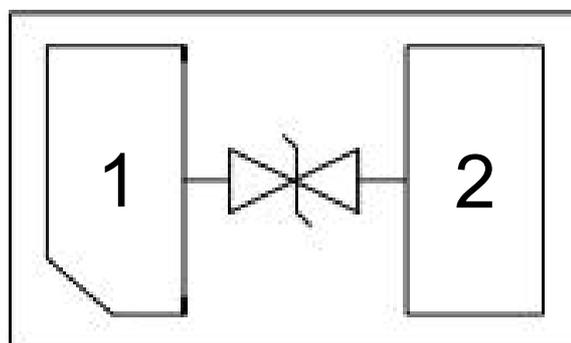
## Applications

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

## Mechanical Characteristics

- Lead Finish: NiPdAu
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below

## Schematic & PIN Configuration



**DFN0603**

## Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power ( $t_p = 8/20\mu s$ waveform)	$P_{PPP}$	80	W
Peak Pulse Current (8/20 $\mu s$ )	$I_{PP}$	8	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	$\pm 20$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 15$	
Operating Temperature Range	$T_J$	-55 to +125	$^{\circ}C$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}C$

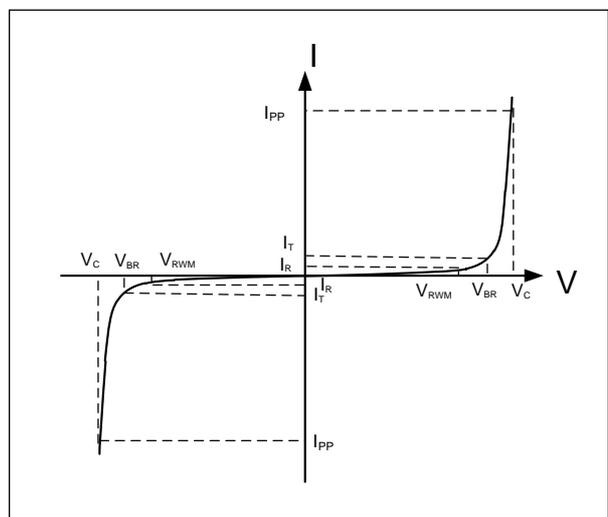
## Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				5	V
Breakdown Voltage	$V_{BR}$	$I_T = 1mA$	6	8	9	V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5.0V$			0.1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ (8 x 20 $\mu s$ pulse)			8	V
Clamping Voltage	$V_C$	$I_{PP} = 8A$ (8 x 20 $\mu s$ pulse)			10	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$			20	pF

## Electrical Parameters (TA = 25 $^{\circ}C$ unless otherwise noted)

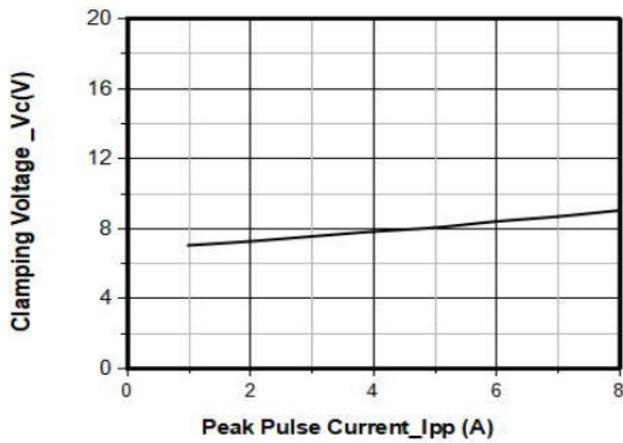
Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current

Note.: 8/20 $\mu s$  pulse waveform.

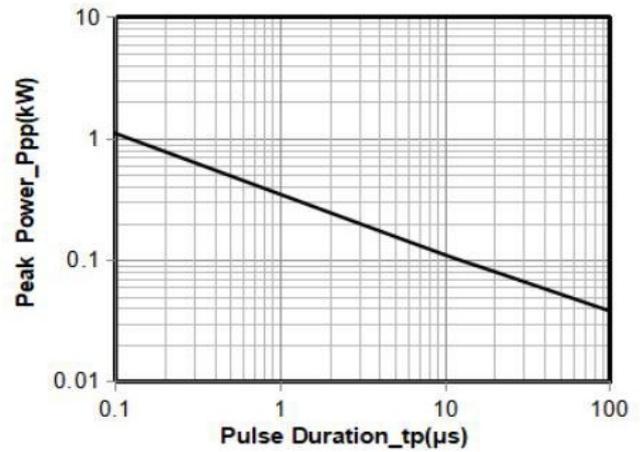


### Typical Performance Characteristics

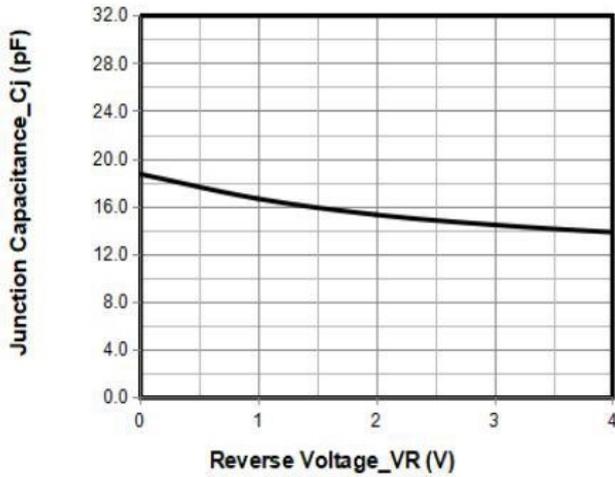
**Junction Capacitance vs. Reverse Voltage**



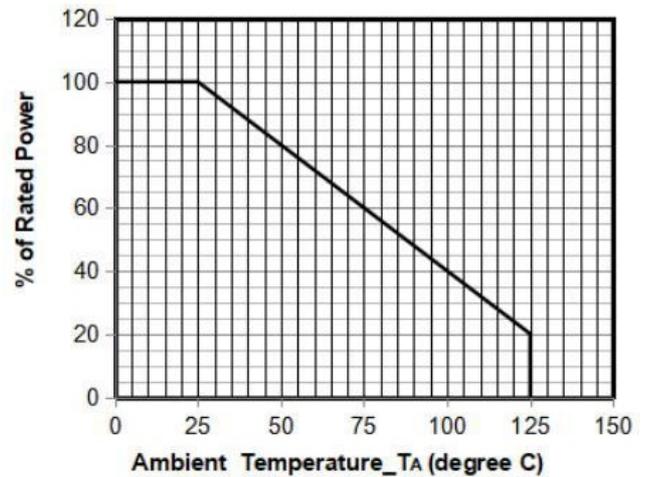
**Peak Pulse Power vs. Pulse Time**



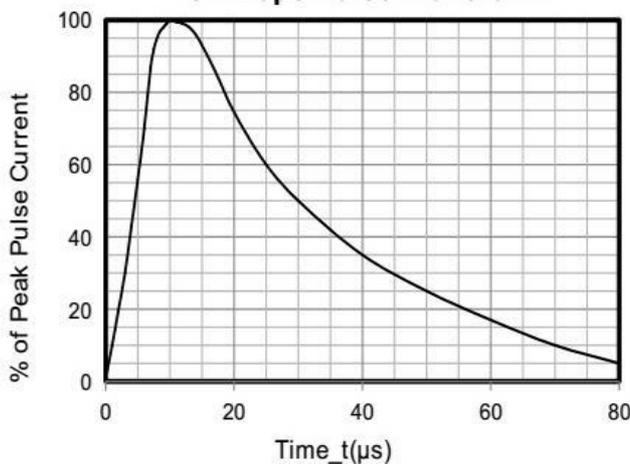
**Clamping Voltage vs. Peak Pulse Current**



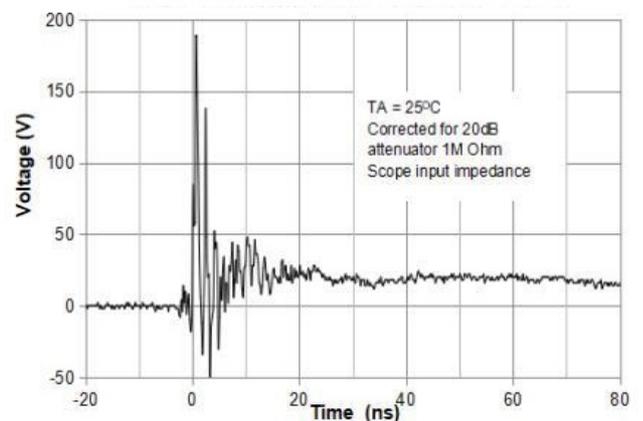
**Power Derating Curve**



**8 X 20μs Pulse Waveform**

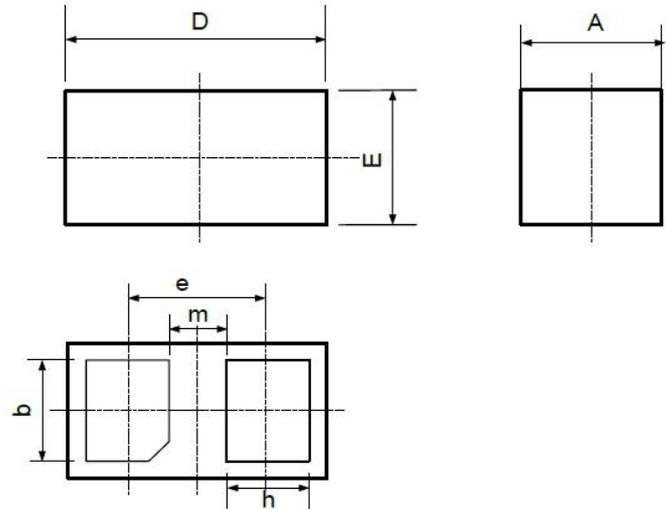


**ESD Clamping Voltage  
8 kV Contact per IEC61000-4-2**

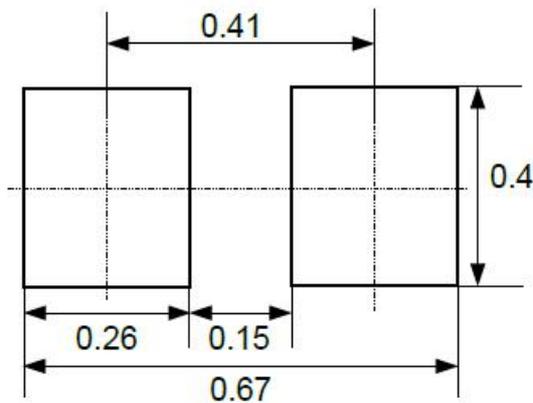


### Package Mechanical Data

SYM	DIMENSIONS	
	MILLIMETERS	
	MIN	MAX
A	0.280	0.320
D	0.550	0.650
E	0.250	0.350
b	0.200	0.300
e	0.350	
m	0.165	
h	0.070	0.170



### Suggested Land Pattern



### Ordering Information

Order code	Package	Base qty	Delivery mode
PTN062G20S5B8	DFN0603	10K	Tape and reel