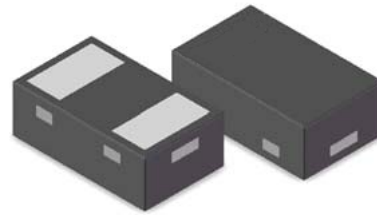


## Features

- Ultra small package: 0.6X0.3X0.3mm
- Ultra low capacitance: 0.6pF typical
- Working voltage: 5V
- Low clamping voltage
- 2-pin leadless package
- RoHS compliant



**DFN0603**

## IEC Compatibility (EN61000-4)

- IEC 61000-4-2  $\pm 20\text{kV}$  contact  $\pm 25\text{kV}$  air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A (8/20 $\mu\text{s}$ )

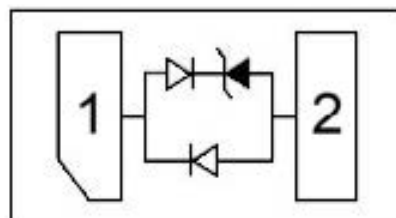
## Applications

- Cellular Handsets and Accessories
- Display Ports
- MDDI Ports
- USB Ports
- Digital Visual Interface (DVI)
- PCI Express and Serial SATA Ports

## 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 ( $T_P = 8/20\mu\text{s}$ waveform)	$P_{PP}$	75	W
Peak Pulse Current (8/20 $\mu\text{s}$ )	$I_{PP}$	5	A
ESD per IEC 61000-4-2 (Air)	$V_{ESD}$	$\pm 25$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 20$	
Operating Temperature Range	$T_J$	-55 to +125	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

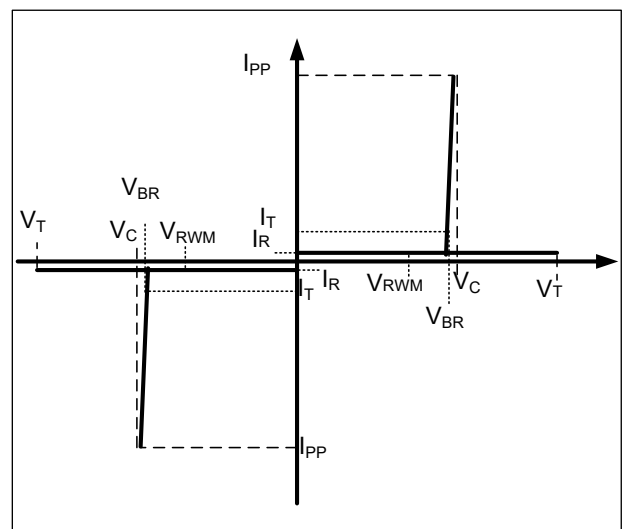
## Electrical Characteristics

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				5	V
Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$	6			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5\text{V}$			0.5	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}$ (8 x 20 $\mu\text{s}$ pulse)			10	V
Clamping Voltage	$V_C$	$I_{PP} = 5\text{A}$ (8 x 20 $\mu\text{s}$ pulse)			15	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$		0.6	0.8	pF

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

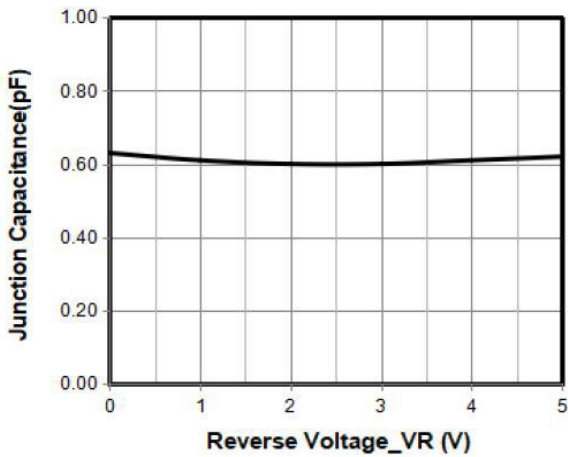
Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$V_T$	Trigger Voltage

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

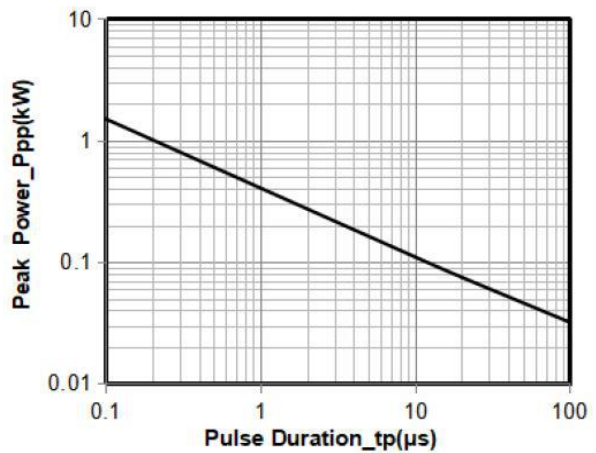


### Typical Performance Characteristics

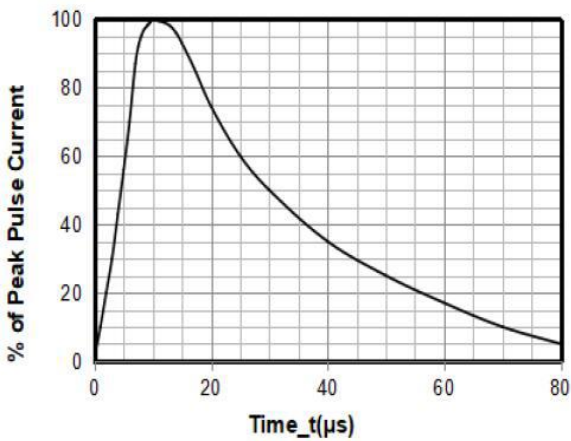
**Junction Capacitance vs. Reverse Voltage**



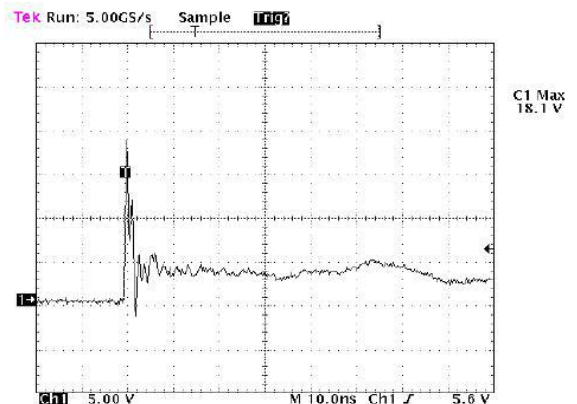
**Peak Pulse Power vs. Pulse Time**



**8 X 20μs Pulse Waveform**

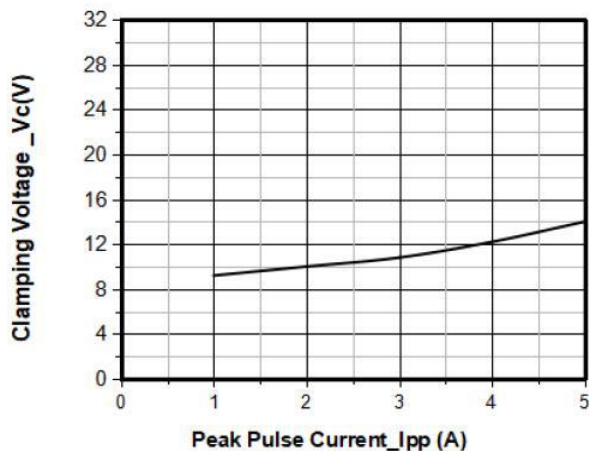


**ESD Clamping Voltage  
8 kV Contact per IEC61000-4-2**

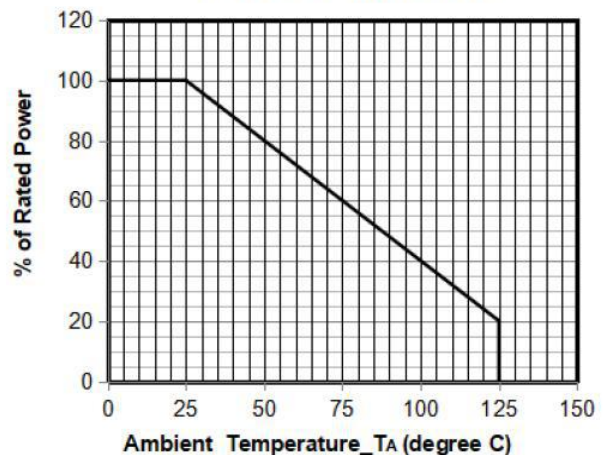


Note: Data is taken with a 10x attenuator

**Clamping Voltage vs. Peak Pulse Current**

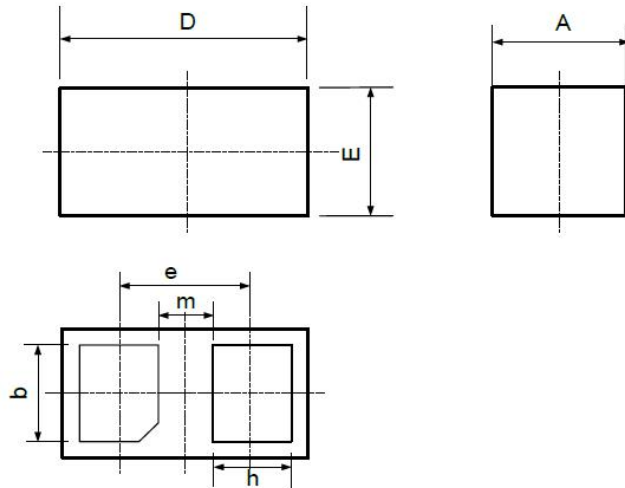


**Power Derating Curve**

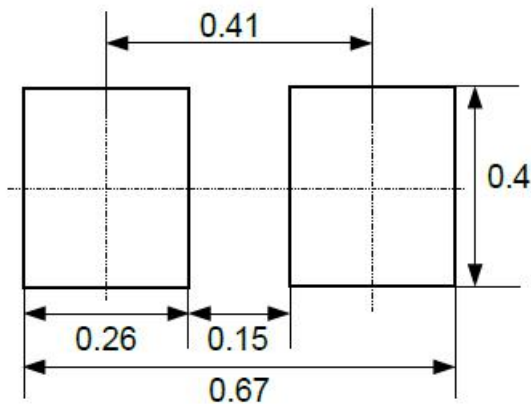


### Package Mechanical Data

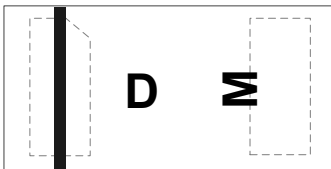
SYM	DIMENSIONS	
	MILLIMETERS	
	MIN	MAX
A	0.28	0.32
D	0.55	0.65
E	0.25	0.35
b	0.20	0.30
e	0.350	
m	0.165	
h	0.07	0.17



### Suggested Land Pattern



### Marking Information



### Ordering Information

Order code	Package	Base qty	Delivery mode
PTN062L08S5C7	DFN0603	15K	Tape and reel