

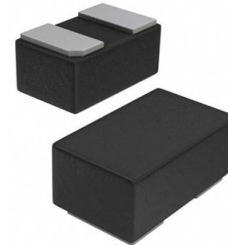
### Features

- Operating voltage: 1.5V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test  
Air discharge:  $\pm 15\text{kV}$   
Contact discharge:  $\pm 12\text{kV}$
  - IEC61000-4-5 (Lightning) 4 A (8/20  $\mu\text{s}$ )
- RoHS Compliant

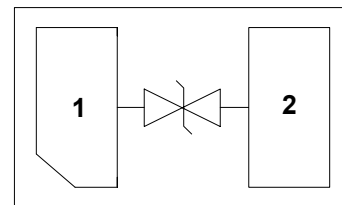
### Applications

- USB Ports
- SIM Ports
- Smart Phones
- Wireless Systems
- Set-top box and digital TV
- Digital video interface (DVI)
- Ethernet 10/100/1000 Base T

### Dimensions DFN0603



### Pin Configuration



### Mechanical Characteristics

- Package: DFN0603
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel: 10,000pcs
- Reel Size: 7 inch
- Device Marking: 1S

### Absolute Maximum Ratings (T<sub>amb</sub>=25°C unless otherwise specified)

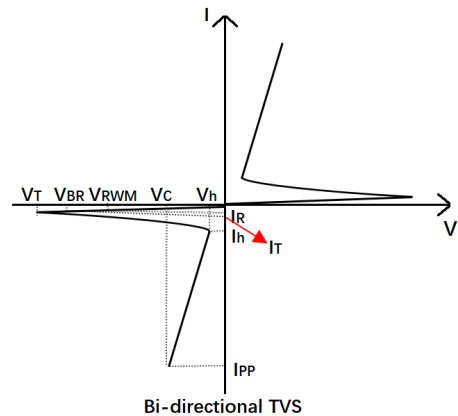
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 $\mu\text{s}$ )	P <sub>pp</sub>	20	W
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	$\pm 15$	kV
ESD per IEC 61000-4-2 (Contact)		$\pm 12$	
Operating Temperature Range	T <sub>J</sub>	-40 to +125	°C
Storage Temperature Range	T <sub>STJ</sub>	-55 to +150	°C

## Electrical Characteristics (TA=25°C unless otherwise specified)

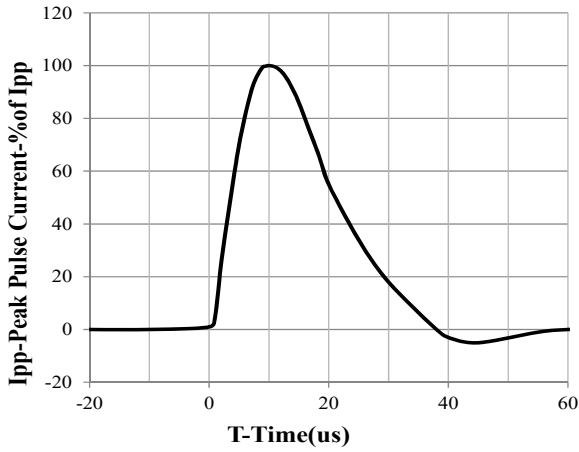
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	$V_{RWM}$				1.5	V
Breakdown Voltage	$V_{BR}$	$I_T = 1\text{mA}$	5	6.5		V
Reverse Leakage Current	$I_R$	$V_{RWM} = 1.5\text{V}$			0.1	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}$ (8 x 20 $\mu\text{s}$ pulse)		1.8		V
Clamping Voltage	$V_C$	$I_{PP} = 4\text{A}$ (8 x 20 $\mu\text{s}$ pulse)		2.9	3.5	V
Junction Capacitance	$C_J$	$V_R = 0\text{V}$ , $f = 1\text{MHz}$		0.2	0.3	pF

## Electrical Parameters (TA=25°C unless otherwise specified)

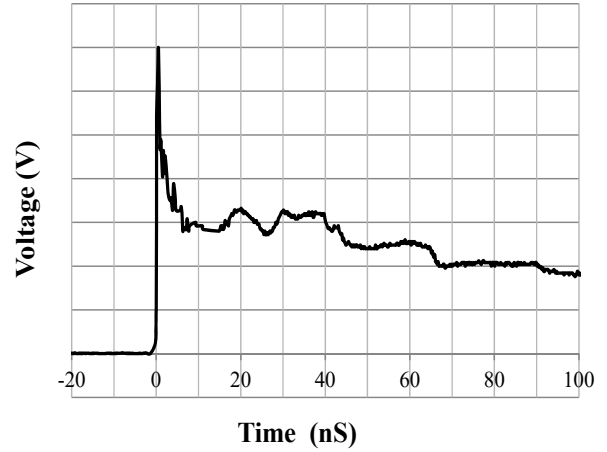
Symbol	Parameter
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_h$	Holding Voltage
$I_h$	Holding Current
$V_T$	Reverse Triggering Voltage



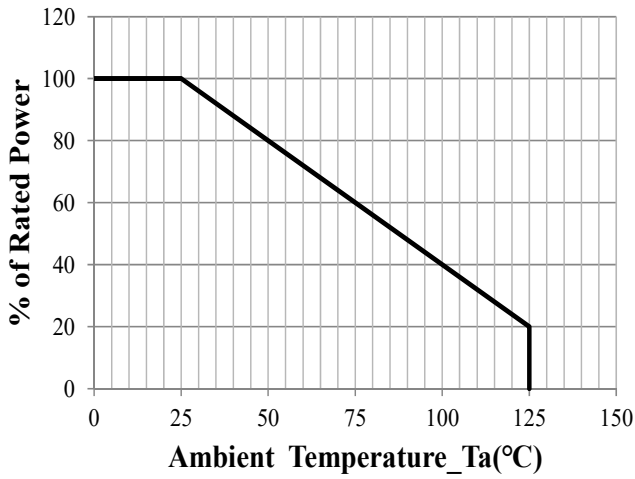
**Typical Performance Characteristics**(TA=25°C unless otherwise specified)



**8 / 20us Pulse Waveform**

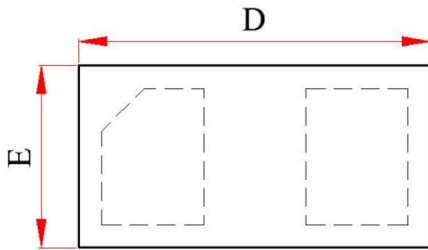


**IEC61000-4-2 Pulse Waveform**

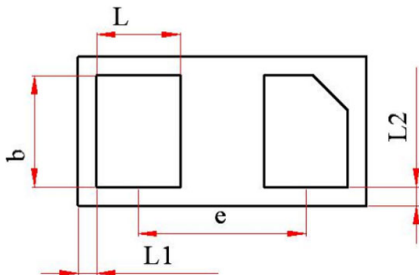


**Power Derating Curve**

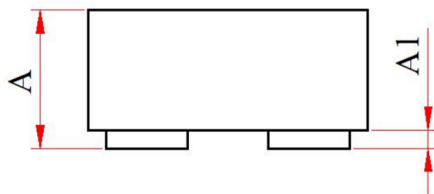
## DFN0603 Package Outline Drawing



TOP VIEW



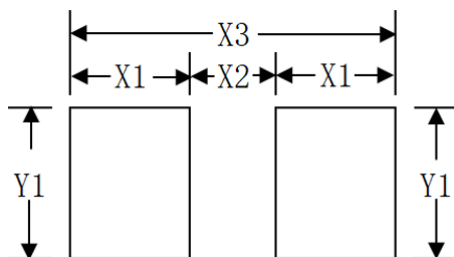
BOTTOM VIEW



SIDE VIEW

SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	Min	Typ	Max	Min	Typ	Max
A	0.280	--	0.340	0.0110	--	0.0134
A1	--	--	0.050	--	--	0.0020
D	0.590	0.620	0.640	0.0232	0.0244	0.0252
E	0.290	0.320	0.340	0.0114	0.0126	0.0134
b	0.215	0.240	0.265	0.0085	0.0094	0.0104
L	0.155	0.180	0.205	0.0061	0.0071	0.0081
L1	0.04 REF			0.0016 REF		
L2	0.04 REF			0.0016 REF		
e	0.36 BSC			0.0142 BSC		

## Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETER	INCHES
X1	0.25	0.010
X2	0.15	0.006
X3	0.65	0.026
Y1	0.30	0.012

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