

# WPE0521NB

## 1-LINE ULTRA LOW CAPACITANCE BI-DIRECTIONAL TVS DIODE

<b>VOLTAGE</b>	<b>5.0Volt</b>	<b>POWER</b>	<b>100 Watts</b>
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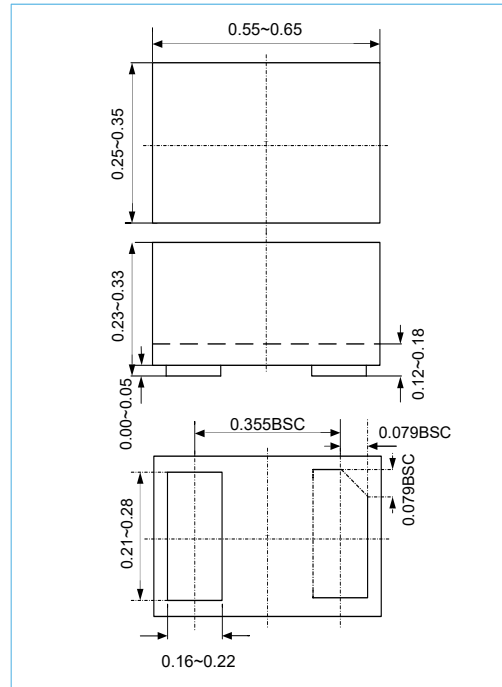
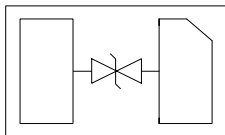
DFN0603-2 Unit:mm

### FEATURES

- Ultra small package: 0.6x0.3x0.3mm
- Ultra low capacitance: 0.25pF typical
- Ultra low leakage: nA level
- Low clamping voltage

### MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0
- Marking Code: ZZ



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

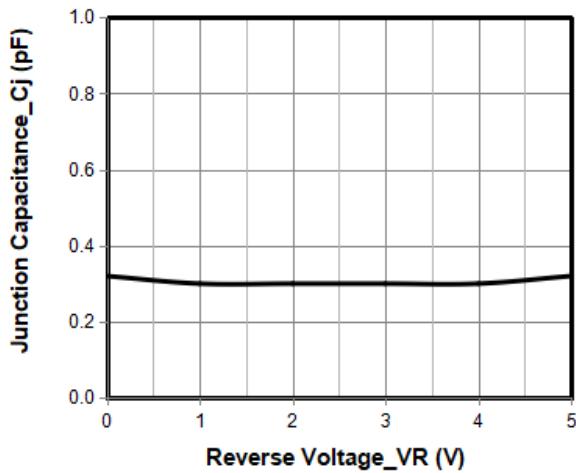
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	100	W
Peak Pulse Current (8/20μs)	I <sub>PP</sub>	4	A
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±21	KV
ESD per IEC 61000-4-2 (Contact)		±21	
Operating Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	°C

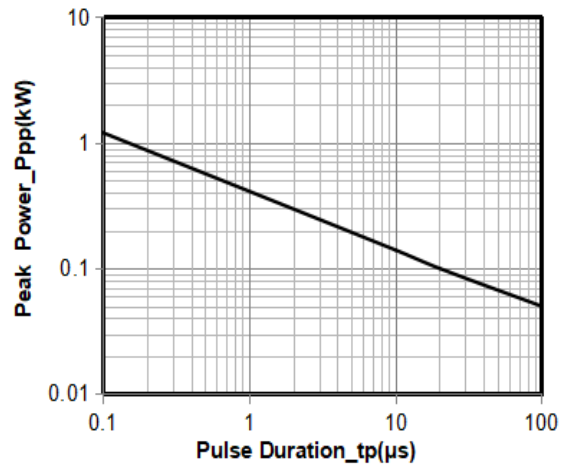
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V <sub>RWM</sub>		5		V	
Breakdown Voltage	V <sub>BR</sub>	6.5		9.5	V	I <sub>T</sub> = 1mA
Reverse Leakage Current	I <sub>R</sub>			0.2	μA	V <sub>RWM</sub> = 5V
Clamping Voltage	V <sub>C</sub>			13	V	I <sub>PP</sub> = 1A (8 x 20μs pulse)
Clamping Voltage	V <sub>C</sub>			25	V	I <sub>PP</sub> = 4A (8 x 20μs pulse)
Junction Capacitance	C <sub>J</sub>		0.25		pF	V <sub>R</sub> = 0V, f = 1MHz

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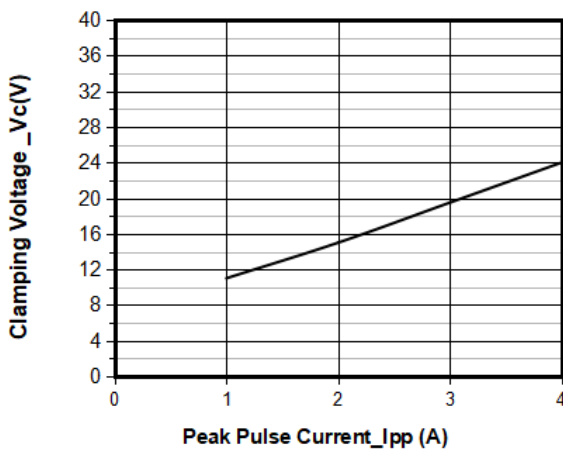
## RATING AND CHARACTERISTIC CURVES



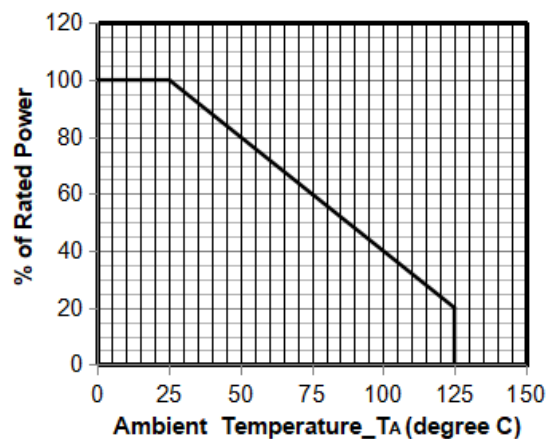
Junction Capacitance vs. Reverse Voltage



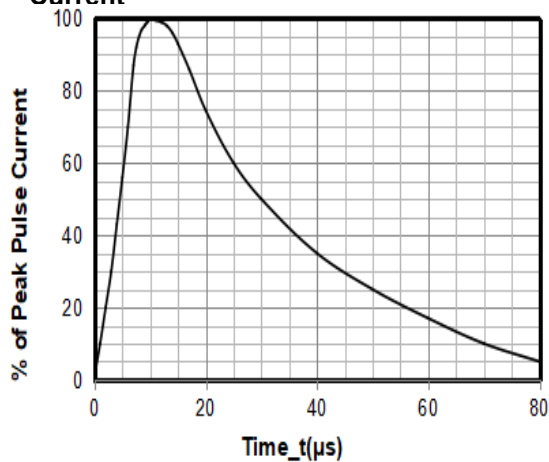
Peak Pulse Power vs. Pulse Time



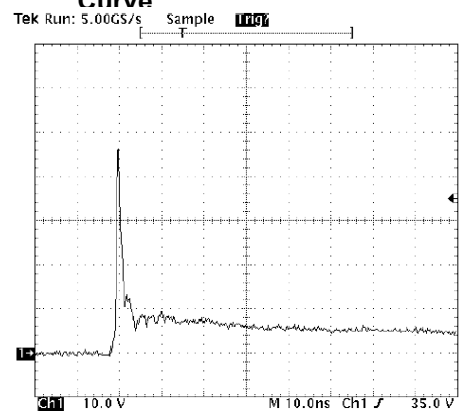
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



8 X 20μs Pulse Waveform



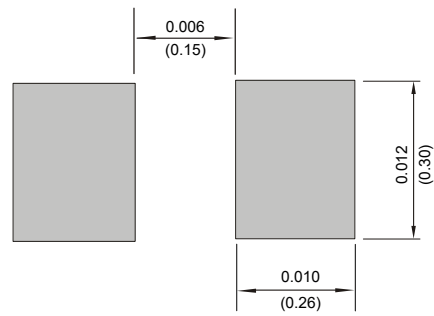
ESD Clamping Voltage  
8 kV Contact per IEC61000-4

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## MOUNTING PAD LAYOUT

**DFN0603-2L**

Unit:Inch(mm)



## Ordering Information

- Packing information**

WPE0521NB	Packing Quantity
Tape&Reel	7Inch; 10kpcs/Reel
Bulk(Tube/Box)	N/A