



## KRN0541Z.TNT

### Transient Voltage Suppressors

### ESD Protection Diodes with Ultra-Low Capacitance

#### Applications

- Mobile phone
- PAD
- Notebook
- STB
- LCD TV
- Digital camera
- Other electronic equipment



#### Features

- Small Body Outline Dimensions
- Low Body Height
- Peak Power up to 80 Watts @ 8 x 20  $\mu$ s Pulse
- Low Leakage current
- Response Time is Typically < 1 ns
- ESD Rating of Class 3 (> 16 kV) per Human Body Model
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



#### Absolute Ratings ( $T_{amb}=25^{\circ}C$ )

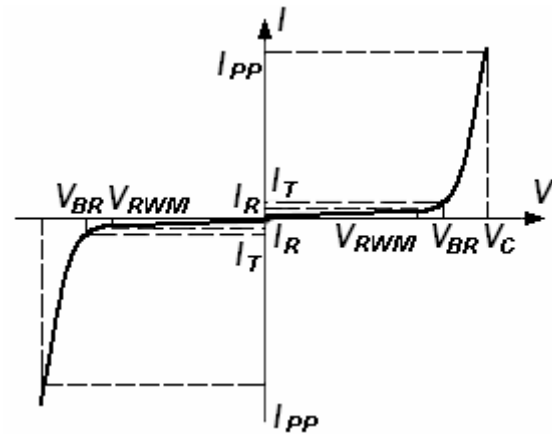
Symbol	Parameter	Value	Units	
$P_{PP}$	Peak Pulse Power ( $t_p = 8/20 \mu s$ )	80	W	
$T_L$	Maximum lead temperature for soldering during 10s	260	$^{\circ}C$	
$T_{stg}$	Storage Temperature Range	-55 to +155	$^{\circ}C$	
$T_{op}$	Operating Temperature Range	-40 to +125	$^{\circ}C$	
$T_j$	Maximum junction temperature	150	$^{\circ}C$	
	IEC61000-4-2 (ESD)	air discharge contact discharge	$\pm 15$ $\pm 8$	KV
	IEC61000-4-4 (EFT)		40	A
	ESD Voltage	Per Human Body Model	16	KV



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## Electrical Parameter

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 @ $V_{RWM}$
$I_T$	Test Current
$V_{BR}$	Breakdown Voltage @ $I_T$



## Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. VF = 0.9V at IF = 10mA

$V_{RWM}$ (V)	$I_{R1}$ ( $\mu$ A) @ $V_{RWM}$	$I_{R2}$ ( $\mu$ A) @ $V_R=3.5V$	$V_{BR}$ (V) @ $I_T$ (Note 1)	$I_T$	$V_C$ (V) @ $I_{PP}=5 A^*$	$V_C$ (V) @ Max $I_{PP}^*$	$I_{PP}$ (A)*	$P_{PK}$ (W)*	C (pF)
Max	Max	Max	Min	mA	Typ	Max	Max	Max	Typ
5.0	0.5	0.3	5.6	1.0	11.6	18.6	9.4	174	3

\*Surge current waveform per Figure 1.

- $V_{BR}$  is measured with a pulse test current  $I_T$  at an ambient temperature of 25°C.

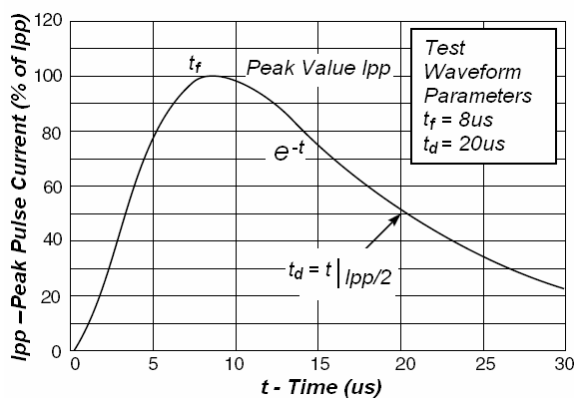


Fig1. Pulse Waveform

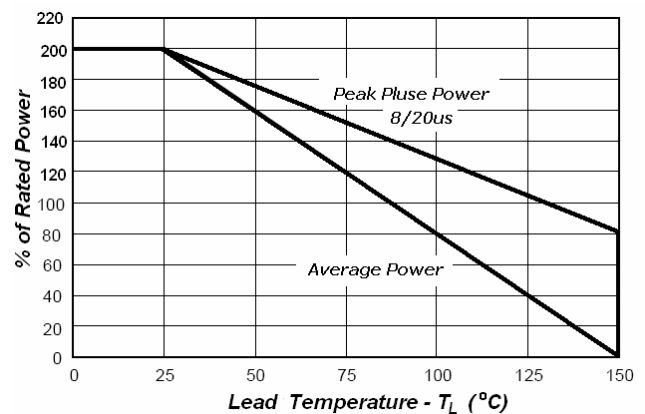
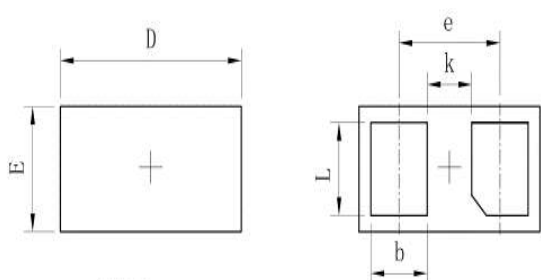


Fig2. Power Derating Curve

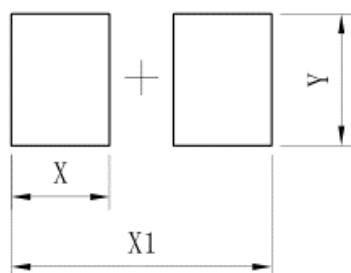
## DFN0603

### OUTLINE AND DIMENSIONS



DFN0603			
Dim	Min	Typ.	Max
D	0.58	0.61	0.64
E	0.28	0.31	0.34
e	-	0.34	-
L	0.20	0.23	0.26
b	0.16	0.19	0.22
A	0.25	0.28	0.31
k	0.12	0.15	0.18
All Dimensions in mm			

### SOLDERING FOOTPRINT



DFN0603	
DIM	(mm)
X	0.23
X1	0.61
Y	0.30