

ESDBL0531Z

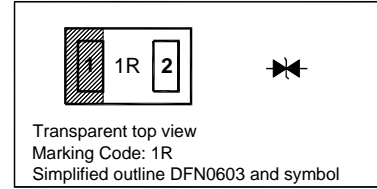
Transient Voltage Suppressors

Features

- Low ESD clamping voltage
- Low reverse current
- Low capacitance

PINNING

PIN	DESCRIPTION
1	Anode
2	Anode



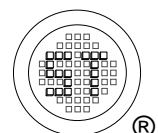
Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Pulse Power ($t_p = 8/20 \mu\text{s}$)	P_{PK}	60	W
Peak Pulse Current ($t_p = 8/20 \mu\text{s}$)	I_{PP}	3	A
ESD contact discharge (IEC61000-4-2) Air Contact	V_{ESD}	± 15 ± 12	KV
Operating Junction Temperature Range	T_j	- 55 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

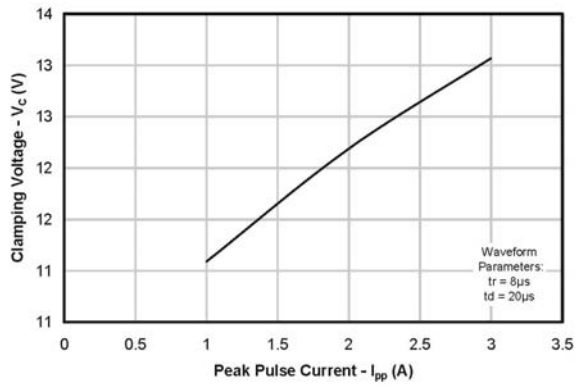
Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage Pin 1 to 2 or 2 to 1	V_{RWM}	-	-	5	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$, Pin 1 to 2 or 2 to 1	$V_{(BR)R}$	7	-	11	V
Reverse Current at $V_{RWM} = 5 \text{ V}$, Pin 1 to 2 or 2 to 1	I_R	-	-	20	nA
Clamping Voltage at $I_{PP} = 1 \text{ A}$, $t_p = 8/20 \mu\text{s}$, Pin 1 to 2 or 2 to 1 at $I_{PP} = 3 \text{ A}$, $t_p = 8/20 \mu\text{s}$, Pin 1 to 2 or 2 to 1	V_C	- -	- -	15 20	V
ESD Clamping Voltage ¹⁾ at $I_{PP} = 4 \text{ A}$, $t_{ip} = 0.2/100 \text{ ns}$ at $I_{PP} = 16 \text{ A}$, $t_{ip} = 0.2/100 \text{ ns}$	V_C	- -	13 21	- -	V
Junction Capacitance at $V_R = 0 \text{ V}$ to 5 V , $f = 1 \text{ MHz}$	C_j	-	-	0.4	pF

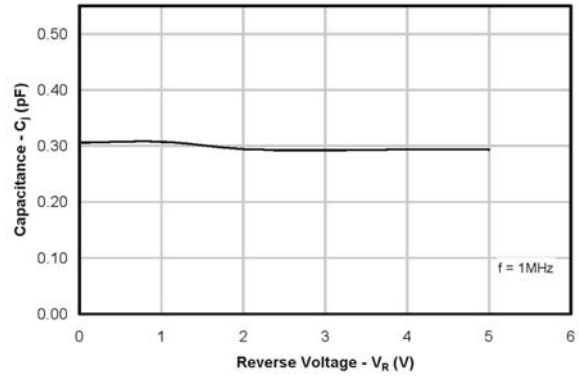
¹⁾ Transmission Line Pulse Test (TLP) Settings: $t_p = 100 \text{ ns}$, $t_r = 0.2 \text{ ns}$, I_{TLP} and V_{TLP} averaging window: $t_1 = 70 \text{ ns}$ to $t_2 = 90 \text{ ns}$.



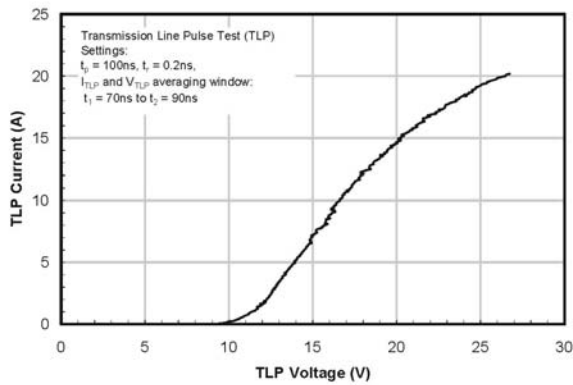
Clamping Voltage vs. Peak Pulse Current



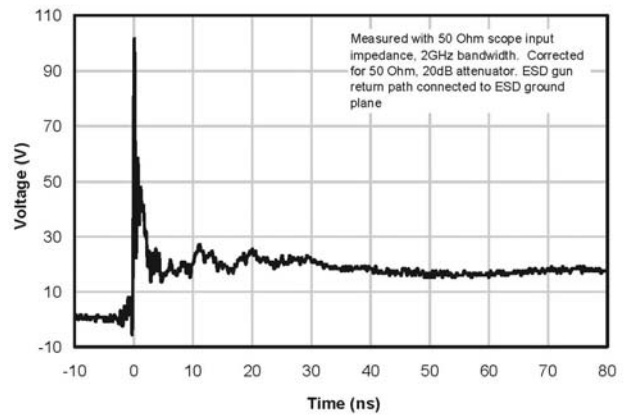
Junction Capacitance vs. Reverse Voltage



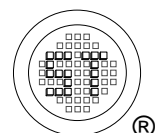
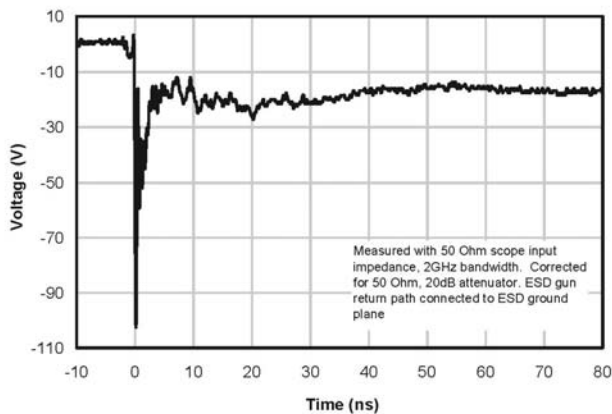
TLP Characteristic



ESD Clamping (+8kV Contact per IEC 61000-4-2)



ESD Clamping (-8kV Contact per IEC 61000-4-2)

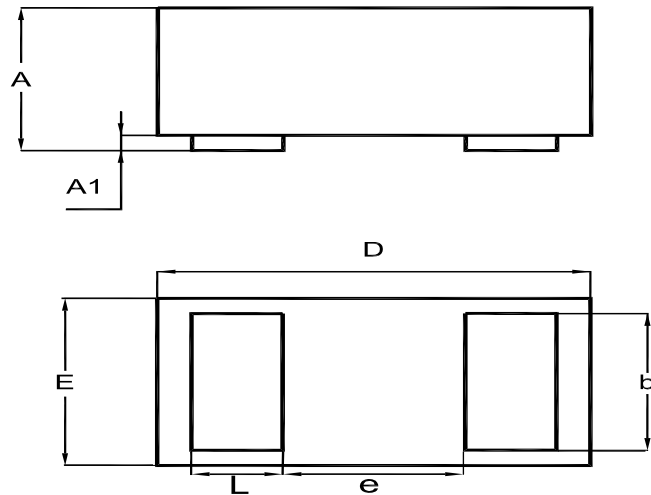


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PACKAGE OUTLINE

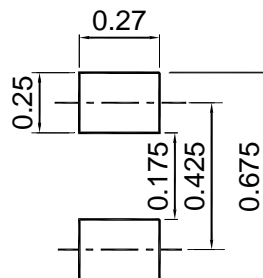
Plastic surface mounted package; 2 leads

DFN0603



UNIT	A	A1	b	D	E	e	L
mm	0.27 0.33	0 0.025	0.21 0.29	0.57 0.65	0.28 0.35	0.355	0.14 0.22

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
DFN0603	8	4 ± 0.1	0.157 ± 0.004	178	7	10,000

