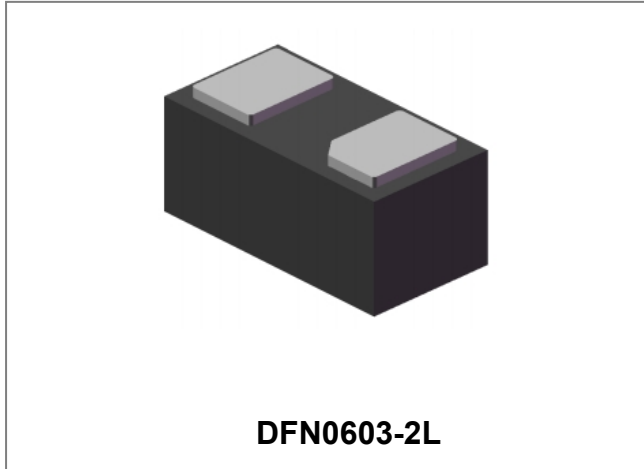


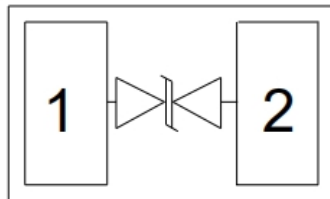
## eGuard0521Z Transient Voltage Suppressor



### Features

- High ESD withstand Voltage: +/-17kV (Contact) and +/- 25kV (Air) per IEC 61000-4-2
- Able to withstand over 1000 ESD strikes per IEC 61000-4-2 Level 4
- Ultra-small 0201 package
- Protects one high-speed data line
- Low reverse current: <10nA typical (VR=5V)
- Working voltage: +/- 5V
- Low capacitance: 0.35pF typical
- This is a Halogen Free Device

### Circuit Diagram



### Applications

- HDMI 1.3 and HDMI 1.4
- USB 2.0
- MHL
- LVDS Interfaces
- FM Antenna
- PCI Express
- eSATA Interfaces
- Peripherals

### Mechanical Characteristics

- DFN0603-2L package
- Marking : Marking Code
- Molding compound flammability rating: UL 94V-0

### Maximum Ratings

Characteristics	Symbol	Max.	Units
Peak Pulse Power (tp = 8/20μs)	P <sub>pk</sub>	100	W
Peak Pulse Current (tp=8/20μs)	I <sub>PP</sub>	4	A
ESD per IEC 61000-4-2 (Air) <sup>1</sup>	V <sub>ESD</sub>	±25	KV
ESD per IEC 61000-4-2 (Contact) <sup>1</sup>		±17	
Operating Temperature	T <sub>OP</sub>	-55 to +125	°C
Storage Temperature	T <sub>STO</sub>	-55 to +150	°C

Notes: 1. ESD gun return path connected to ESD ground reference plane.

- China - Germany - Korea - Singapore - United States ●
- <http://www.smc-diodes.com> - [sales@smc-diodes.com](mailto:sales@smc-diodes.com) ●

**Electrical Characteristics(T=25°C unless otherwise specified)**

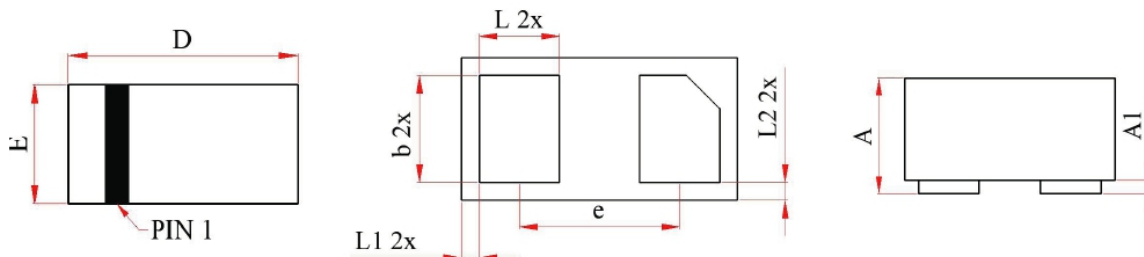
Characteristics	Symbol	Condition	Min.	Typ.	Max.	Units
Reverse Stand-Off Voltage	$V_{RWM}$	-	-	-	5	V
Reverse Breakdown Voltage	$V_{BR}$	@ $I_R = 1mA$	6	9.3	11	V
Reverse Leakage Current	$I_R$	@ $V_{RWM} = 5V$	-	0.005	0.1	$\mu A$
Clamping Voltage(Note 2)	$V_C$	@ $I_{PP} = 1A, t_p=8/20\mu s$	-	-	15	V
Clamping Voltage(Note 2)	$V_C$	@ $I_{PP} = 4A, t_p=8/20\mu s$	-	-	25	V
Junction Capacitance	$C_j$	@ $V_R = 0V, f_{SIG} = 1MHz$	-	0.35	0.5	pF

**Ordering Information:**

Device	Package	Shipping
eGuard0521Z	DFN0603-2L	10000pcs/ reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

**Mechanical Dimensions**



Symbol	Dimension In Millimeters			Dimension In Inches		
	Normal	Min	Max	Normal	Min	Max
A	--	0.280	0.340	--	0.011	0.013
A1	--	--	0.050	--	--	0.002
D	0.620	0.590	0.640	0.024	0.023	0.025
E	0.320	0.290	0.340	0.013	0.011	0.013
b	0.240	0.215	0.265	0.009	0.008	0.010
L	0.180	0.155	0.205	0.007	0.006	0.008
L1	0.040 REF			0.002 REF		
L2	0.040 REF			0.002 REF		
e	0.360 BSC			0.014 BSC		

## Marking Diagram



1Z = Marking code

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