

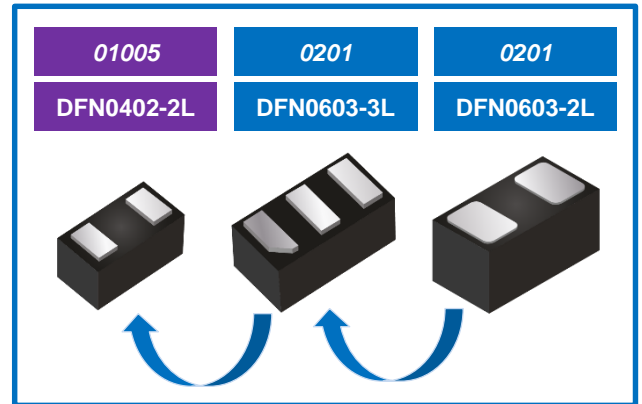
# High Efficiency ESD Protection Diodes

Smart Protection Devices for High-Speed Data Lines



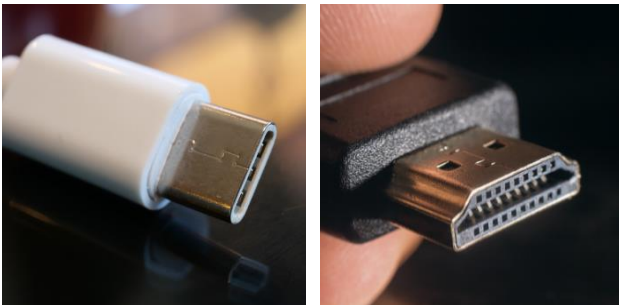
## ► Features

- Low junction capacitance of 0.1 pF
- Ultra-small and compact packages
- Single line and multiline arrays
- High-speed application protection
- Flexible PCB layout & design
- Low clamping voltage
- IEC 61000-4-2 level 4 (ESD)



## ► Applications

### Interfaces



- USB Type-C (4/3.2 Gen2)
- Thunderbolt (up to 40 Gbps)
- DP (2.1/2.0)
- HDMI (2.1/2.0)

### Instruments



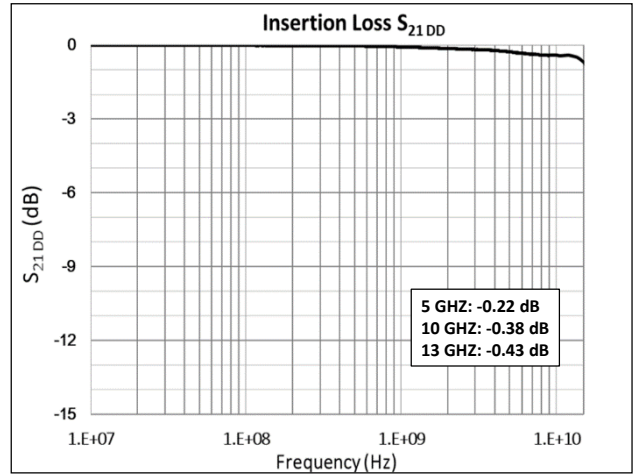
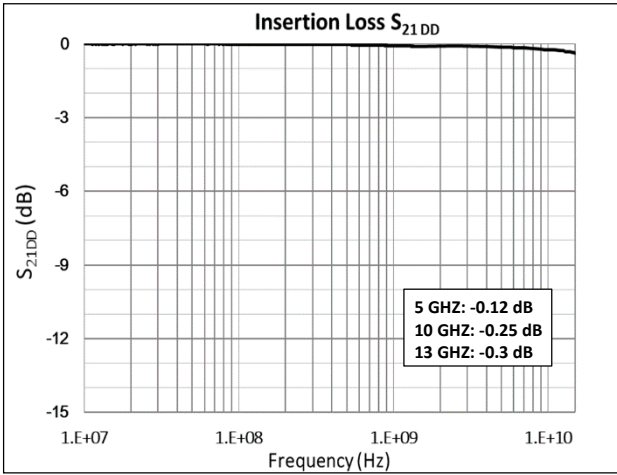
- Antenna protection



- Portable electronics








# ➤ Insertion Loss $S_{21DD}$



P/N	Capacitance (Typ.)	Insertion Loss $S_{21DD}$		
		f = 5G Hz	f = 10G Hz	f = 13G Hz
PS1101-D32	0.09 pF	-0.12 dB	-0.25 dB	-0.3 dB

P/N	Capacitance (Typ.)	Insertion Loss $S_{21DD}$		
		f = 5G Hz	f = 10G Hz	f = 13G Hz
PS1201-D32	0.19 pF	-0.22 dB	-0.38 dB	-0.43 dB

# ➤ Products

Channel	IEC61000-4-2 ESD Contact (kV)	IEC61000-4-5 Surge (A)	Junction Cap. (pF)	$V_{RMW}$ (V)	TLP Clamping Voltage @ 16 A (V)					
						DFN0603-2L	DFN1006-2L	DFN1006-3L	DFN2510A-10L	SOT-23-6L-1
1	9	4	0.09	1	11.6	PS1101-D32				
	11	3.5	0.09	3.3	11.6	PS1103-D32				
	12	5	0.19	1.5	4.1	PS1202-D32				
				3.3	4.1	PS1203-D32				
				5	4.4	PS1205-D32				
				0.17	2.8	4.1	PS1223-D32			
	15	6.5	0.19	1	6.5	PS1201-D32				
	20	7	0.42	5	4.4	PS1405-D32				
	21	10	0.5	24	3	PS140M-D32				
					3.8		PS150M-D62			
0.6					24	3	PS160M-D32			
25	10	0.5	28	3	PS150P-D32					
30	12	0.7	3.3	2.6		PS1703-D62*				
				5	3	PS1705-D32				
2	20	7	0.42	3.3	4.5			PS2403-D63		
				5	4.5			PS2405-D63		
	30	12	0.7	5	3.1			PS2705-D63		
4	12	5	0.2	3.3	4.1				PS4203-DFA	
				5	5				PS4205-DFA	
	14	4	0.45	5	11				PB4415-DFA	
					9				PB4413-DFA	
					1.5	4.1			PS4312-DFA	
	15	6	0.29	3.3	4.1				PS4313-DFA	
5					4.3			PS4315-DFA		
25	10	0.65	3.3	3.5				PS4613-DFA		
5	15	5.5	0.6	5	10.5					PB5615-S26
	30	10	1	5	5					PS5915-S26

\* Under Development