

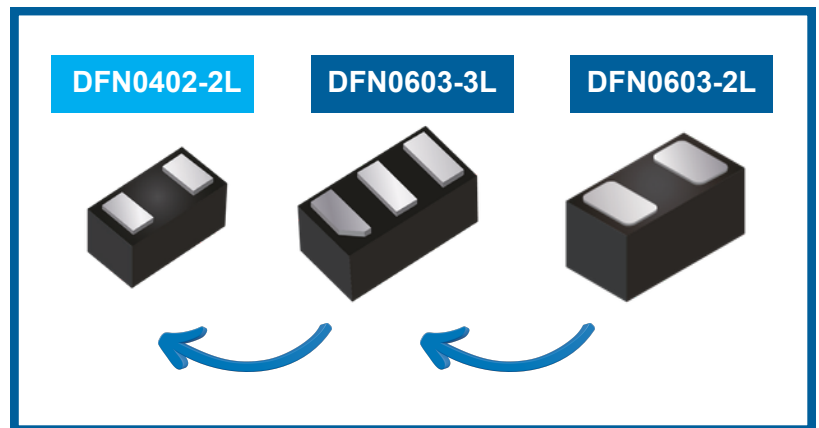
High Efficiency ESD Protection Diodes

Smart Protection Devices for High-Speed Data Lines

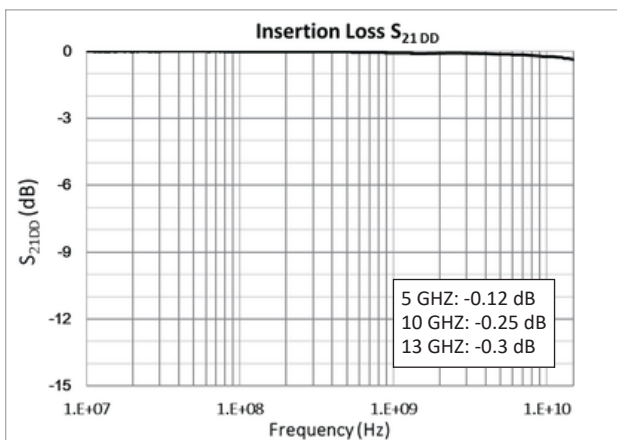


Features

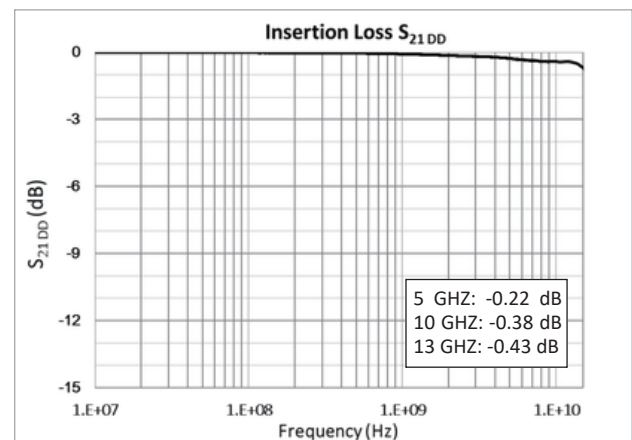
- Low junction capacitance of 0.1 pF
- Ultra-small and compact packages
- Single line and multilayer arrays
- High-speed application protection
- Flexible PCB layout & design
- Low clamping voltage
- IEC 61000-4-2 level 4 (ESD)



Performance



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



➤ Target Applications

Interfaces

- USB Type-C (4/3.2 Gen 2)
- Thunderbolt (up 40 Gbps)
- DP (2.1/2.0)
- HDMI (2.1/2.0)

Instruments

- Antenna protection
- Portable electronics

➤ Products

Channel	IEC61000-4-2 ESD Contact	IEC61000-4-5 Surge	Junction Cap.	V _{RMW}	TLP Clamping Voltage @16A	DFN0603-2L 	DFN1006-2L 	DFN1006T-3L 	DFN2510A-10L 	SOT-23-6L-1 	DFN3020-10L 	DFN5515C-14L DFN5515C-18L 
	kV	A	pF	V	V							
1	9	3	0.09	1	11.6	PS1101-D32						
	11	4.5	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						
		4	0.15	3.3	4.7	PS1263-D32*						
				5	4.7	PS1265-D32*						
	15	6.5	0.19	1	6.5	PS1201-D32						
	20	7	0.42	5	4.4	PS1405-D32						
	12	4	0.2	24	5	PS120M-D32*						
	21	10	0.5	24	3	PS140M-D32						
					3.8		PS150M-D62					
			0.6	24	3	PS160M-D32						
					3.3	PS162M-D32	PS161M-D62*					
						PS161M-D32*	PS161M-D62*					
	25	10	0.5	28	3	PS150P-D32						
	12	4	0.2	28	5	PS120P-D32*						
30	12	0.75	3.3	2.6		PS1703-D62*						
				2.6		PS1705-D62*						
		0.7	5	3	PS1705-D32							
				3.3	2.6	PS1703-D32						
2	20	7	0.42	3.3	4.5			PS2403-D63				
				5	4.5			PS2405-D63				
	30	12	0.8	3.3	3.1			PS2703-D63*				
			0.7	5	3.1			PS2705-D63				
4	12	5	0.09	3.3	8.6				PS4103-DFA			
			0.1	5	8.8				PS4105-DFA			
			0.2	3.3	4.1				PS4203-DFA			
				5	5				PS4205-DFA			
	14	4	0.45	5	11				PB4415-DFA			
	15	5	0.43	3.3	9				PB4413-DFA			
		6	0.29	1.5	4.1				PS4312-DFA			
				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		
8	30	40	2	2.5	2.5						PS8A12-DHA	
			2	3.3	2.5						PS8A13-DHA*	
	18	6	0.1	3.3	6.5							PS8103-DQJ*
	15	6	0.28	3.3	TBD							

* Under Development