



3.3 V superior ESD clamping solutions for consumer electronics

Our PESD3V3V1BCSF & PESD3V3U1BCSF ultra low clamp devices are suitable for single-line protection with bidirectional configuration. These solutions protect against electrostatic discharge / transients and minimize PCB footprint thanks to leadless DSN0603-2 silicon packages.

Nexperia's PESD3V3V1BCSF is a general-purpose device that protects against ESD up to 27 kV while PESD3V3U1BCSF is a low capacitance ($C_d = 6 \text{ pF Typ}$) device with 20 kV ESD rating. Both offer low leakage current ($I_{RM} < 1 \text{ nA}$) and are suitable for sensitive I/O interfaces protection.

Our BCSF products deliver significant improvements over existing PESD5V0L1BSF & PESD5V01BDSF types, especially in terms of transmission line pulse (TLP) clamping behavior.

Features

- › Ultra small leadless silicon package (0.3mm height)
- › Ultra low clamping voltage & low capacitance
- › 3.3 V V_{RWM} reverse standoff voltage
- › Suitable for voltage biased lines, preventing parasitic issues

Applications

- › SoC & IC protection
- › Bus interface lines
- › SIM / SD cards slots
- › Low speed & analog data lines

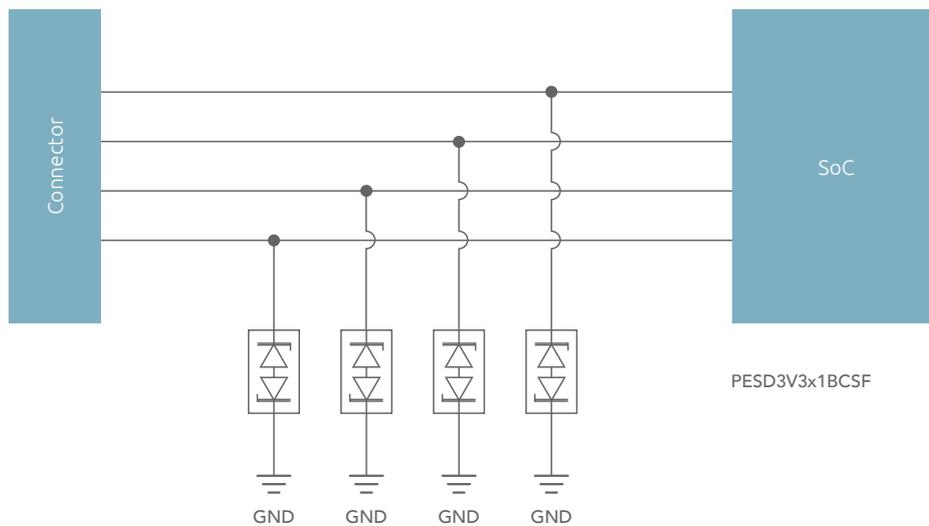
Parametrics

	V_{RWM}	$V_{BR \text{ min}}$	$C_D \text{ (pF) typ/max}$	$I_{PPM \text{ (A) } 8/20\mu s}$	$R_{DYN} \Omega$	VESD contact kV	$V_{CL \text{ 8/20}\mu s \text{ max}}$	$V_{CL \text{ TLP typ at 16 A}}$	$I_{RM} \text{ (nA) typ/max}$
PESD3V3V1BCSF	3.3	4.5	8.5 / 10	8.3	0.17	27	8.9 at 7.1 A	9	1 / 50
PESD3V3U1BCSF	3.3	4.5	5.5 / 6	6.4	0.24	30	9 at 5.4 A	9	1 / 50

Package

Name	Package family	Dimensions (W x L x H, in mm)	
SOD962	DSN0603-2	0.6 x 0.3 x 0.3	

Application diagram



Download the datasheets: [PESD3V3V1BCSE](#), [PESD3V3U1BCSE](#)

Also discover our 16 V & 18 V reverse standoff voltage highly symmetrical ESD protection solutions available in DSN0603-2 package: [PESD16VV1BSF](#), PESD18VV1BSF & [PESD18VV1BBSF](#)

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