

NXP Surge Protection Devices

RoHS Compliant This product is RoHS compliant.



CAN BUS ESD PROTECTION

Features:

- Due to the integrated diode structure only one small SOT-23 package is needed to protect two CAN bus lines
- Max. peak pulse power (PPP):
PESD1CAN = 200W at tp = 8/20ms
PESD2CAN = 230W at tp = 8/20ms
- Low clamping voltage (VCL):
PESD1CAN = 40V at IPP = 1A
PESD2CAN = 41V at IPP = 5A
- Ultra low leakage current: IRM < 1nA

- ESD protection:
PESD1CAN = up to 23kV
PESD2CAN = up to 30kV
- IEC 61000-4-2, level 4 (ESD)
- IEC 61000-4-5 (surge)

Applications:

- CAN bus protection
- Automotive applications

Surface Mount Device

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NXP Part No.	Package	No. of Lines Protected	VRWM (Max.)(V)	IRM (Max.)(nA)	VCL		VBR (Min./Max.)(V)	CD (Typ./Max.)(pF)	Price Each				
						(Typ./Max.)(V)	@ IPP (A)			1	25	100	250	
◆ 771-PESD1CAN-T/R	PESD1CAN,215	SOT-23	2	24	50	---	40	1	25.4/30.3	11/17	.10	.092	.087	.082
◆ 771-PESD2CAN-T/R	PESD2CAN,215	SOT-23	2	24	10	---	34	1	26.2/30.3	25/30	.10	.097	.091	.087

DUAL USB INTEGRATED ESD PROTECTION

Features:

- ESD IEC 61000-4-2 level 4, ±8kV contact discharge compliant protection
- Four pairs of ultra-low input capacitance (1pF typ.) ESD rail-to-rail protection diodes
- Low voltage clamping due to integrated Zener diode
- IEC 61000-4-5 15A Lightning (8/20ms)

Applications:

- General-purpose downstream ESD protection for high frequency analog signal ports and high-speed serial data transmission ports in:
 - Cellular and PCS mobile handsets
 - PC/notebook USB 2.0/IEEE1394 ports
 - DVI interfaces
 - Cordless telephones
 - Wireless data (WAN/LAN) systems
 - PDAs
 - HDMI

Surface Mount Device

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NXP Part No.	Package	No. of Lines Protected	VRWM (Max.)(V)	IRM (Max.)(nA)	IL(n)		VBR(Zener)(Min./Max.)(V)	CD (Typ./Max.)(pF)	Price Each			
						(Max.)(nA)	@ V (V)			1	25	100	250
◆ 771-IP4220CZ6-T/R	IP4220CZ6,125	SO-6	4	5.5	0.1	100	3	6/9	40/---	.44	.308	.263	.189

EMI FILTERS AND ESD PROTECTION

- IEC 61000-4-2; Level 4 (ESD)

Surface Mount Device



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NXP Part No.	Package	No. of Lines Protected	VRWM (Max.)(V)	IRM (Max.)(µA)	VCL		VBR (Min./Max.)(V)	CD (Typ./Max.)(pF)	Price Each			
						(Typ./Max.)(V)	@ IPP (A)			1	25	100	250
◆ 771-IP3048CX5135	IP3048CX5,135	WLCSP-5	2	5	1	1000	3	6.0/10	190/---	.28	.261	.246	.234
◆ 771-IP3088CX5135	IP3088CX5,135	WLCSP-5	2	5.6	0.1	1000	3.5	5.8/10	65/---	.17	.157	.147	.14
◆ 771-IP3088CX10135	IP3088CX10,135	WLCSP-10	4	5.6	0.1	1000	3.5	5.8/10	65/---	.32	.297	.28	.266
◆ 771-IP3088CX15135	IP3088CX15,135	WLCSP-15	6	5.6	0.1	1000	3.5	5.8/10	65/---	.80	.728	.637	.559
◆ 771-IP3088CX20135	IP3088CX20,135	WLCSP-25	8	5.6	0.1	1000	3.5	5.8/10	65/---	.93	.84	.735	.645
◆ 771-IP4041CX25LFP13	IP4041CX25/LF,P,13	WLCSP-25	10	5.5	0.025	25	3	6.0/15	50	.33	.303	.286	.271

FLEXRAY BUS ESD PROTECTION

Features:

- Due to the integrated diode structure only one small SOT-23 package is needed to protect two FlexRay bus lines
- Max. peak pulse power: PPP = 200W at tp = 8/20ms
- Low clamping voltage: VCL = 40V at IPP = 1Ae
- Ultra low leakage current: IRM < 1nA
- Typ. diode capacitance matching: DCD/CD = 0.1%

- ESD protection up to 23kV
- IEC 61000-4-2, level 4 (ESD)
- IEC 61000-4-5 (surge); IPP = 3A at tp = 8/20µs

Applications:

- FlexRay bus protection
- Automotive applications

Surface Mount Device

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NXP Part No.	Package	No. of Lines Protected	VRWM (Max.)(V)	IRM (Max.)(µA)	VCL		VBR (Min./Max.)(V)	CD (Typ./Max.)(pF)	Price Each				
						(Typ./Max.)(V)	@ IPP (A)			1	25	100	250	
◆ 771-PESD1FLEX215	PESD1FLEX,215	SOT-23	2	24	0.05	---	40	1	25.4/30.3	0.1/---	.09	.085	.08	.076

LOCAL INTERCONNECT NETWORK (LIN) ESD PROTECTION

Features:

- ESD protection of one automotive LIN-bus line
- Asymmetrical diode configuration ensures an optimized protection against ElectroMagnetic Interferences (EMI) of a LIN Electronic Control Unit (ECU)
- Max. peak pulse power: PPP = 160W at tp = 8/20µs
- Low clamping voltage: VCL = 40V at IPP = 1A
- Ultra low leakage current: IRM < 1nA
- ESD protection up to 23kV

- IEC 61000-4-2, level 4 (ESD)
- IEC 61000-4-5 (surge); IPP = 3A at tp = 8/20µs
- AEC-Q101 qualified

Applications:

- LIN-bus protection
- Automotive applications

Surface Mount Device

For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NXP Part No.	Package	No. of Lines Protected	VRWM (Max.)(V)	IRM (Max.)(µA)	VCL		VBR (Min./Max.)(V)	CD (Typ./Max.)(pF)	Price Each			
						(Max.)(V)	@ IPP (A)			1	25	100	250
◆ 771-PESD1LIN-T/R	PESD1LIN,115	SOD-323	1	15	0.05	25	1	17.1/20.3	13/17	.11	.104	.098	.093
			1	24	0.05	40	1	25.4/30.3	13/17				

LOW CAPACITANCE ESD PROTECTION DIODES

- IEC 61000-4-2; Level 4 (ESD)

Surface Mount Device



For quantities greater than listed, call for quote.

MOUSER STOCK NO.	NXP Part No.	Package	No. of Lines Protected	VRWM (Max.)(V)	IRM (Max.)(µA)	VCL		VBR (Min./Max.)(V)	CD (Typ./Max.)(pF)	Price Each				
						(Max.)(V)	@ IPP (A)			1	25	100	250	
◆ 771-PESD3V3L1UA115	PESD3V3L1UA,115	SOD-323	1	3.3	0.3	---	8	1	5.3/6.0	34/40	.08	.08	.076	.072
◆ 771-PESD5V0S1BA-T/R	PESD5V0S1BA,115	SOD-323	1	5	0.1	---	10	1	5.3/5.9	35/45	.10	.099	.093	.088
◆ 771-PESD5V0S1BB-T/R	PESD5V0S1BB,115	SOD-523	1	5	0.1	---	10	1	5.3/5.5	35/45	.10	.097	.091	.087
◆ 771-PESD5V0L1BA-T/R	PESD5V0L1BA,115	SOD-323	1	5	1	---	10	1	7.0/8.2	75/---	.10	.097	.091	.087
◆ 771-PESD12VL1BA-T/R	PESD12VL1BA,115	SOD-323	1	12	0.05	---	20	1	14.2/16.7	19/---	.10	.095	.09	.085
◆ 771-PESD15VL1BA-T/R	PESD15VL1BA,115	SOD-323	1	15	0.05	---	25	1	17.1/20.3	16/---	.10	.097	.091	.087
◆ 771-PESD24VL1BA-T/R	PESD24VL1BA,115	SOD-323	1	24	0.05	---	40	1	25.4/30.3	11/---	.10	.097	.091	.087
◆ 771-PESD5V0L2UU115	PESD5V0L2UU,115	SOT-323	2	5	0.09	---	13	5.5	5.8/6.6	19/23	.08	.08	.076	.072
◆ 771-PESD5V0S2BT-T/R	PESD5V0S2BT,215	SOT-23	2	5	0.1	---	10	1	5.3/5.5	35/45	.40	.34	.291	.231
◆ 771-PESD5V0L2BT-T/R	PESD5V0L2BT,215	SOT-23	2	5	1	---	10	1	7.0/8.2	75/---	.17	.162	.153	.145
◆ 771-PESD6V0L2UU115	PESD6V0L2UU,115	SOT-323	2	6	0.018	---	13.5	5.5	6.4/7.2	17/20	.08	.08	.076	.072
◆ 771-PESD12VL2BT-T/R	PESD12VL2BT,215	SOT-23	2	12	0.05	---	20	1	14.2/16.7	19/---	.46	.35	.297	.256
◆ 771-PESD15VL2BT-T/R	PESD15VL2BT,215	SOT-23	2	15	0.05	---	25	1	17.1/20.3	16/---	.47	.34	.297	.256
◆ 771-PESD24VL2BT-T/R	PESD24VL2BT,215	SOT-23	2	24	0.05	---	40	1	25.4/30.3	11/---	.47	.38	.33	.267
◆ 771-PESD3V3L4UG-T/R	PESD3V3L4UG,115	SOT-353	4	3.3	0.3	---	8	1	5.3/5.88	22/28	.17	.162	.153	.145
◆ 771-PESD5V0L4UG-T/R	PESD5V0L4UG,115	SOT-353	4	5	0.025	---	10	1	6.46/7.14	16/19	.52	.42	.366	.297
◆ 771-PESD3V3L5UF-T/R	PESD3V3L5UF,115	SOT-886	5	3.3	0.3	---	10	1	5.3/5.9	22/28	.51	.43	.341	.291
◆ 771-PESD3V3L5UY-T/R	PESD3V3L5UY,115	SOT-363	5	3.3	0.3	---	10	1	5.3/5.9	22/28	.58	.42	.363	.313
◆ 771-PESD5V0L5UY-T/R	PESD5V0L5UY,115	SOT-363	5	5	0.025	---	10	1	6.4/7.2	16/19	.59	.42	.366	.316
◆ 771-IP4309CX9135	IP4309CX9,135	WLCSP-9	8	5.5	0.05	---	---	---	6.0/11	---	.52	.478	.45	.428