

SINGLE AND DUAL LOW CAPACITANCE ESD / TRANSIENT PROTECTOR FOR 1.5 V SYSTEMS

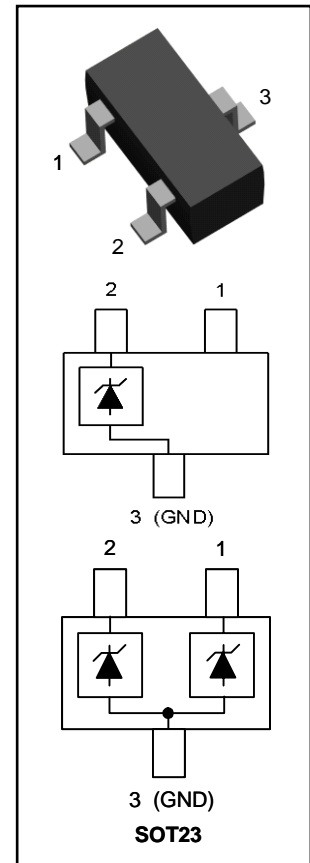
This patented Single and Dual Zener like ESD/Transient Protector has been designed to protect Sensitive Equipment against ESD and prevent Latch-Up events, offering a minimum insertion loss in High speed Data Lines in Communications ports used in Portable Consumer, Computing and Networking Applications operating at 1.5V and below.

SPECIFICATION FEATURES

- Maximum Capacitance of 10pF @ 0Vdc, 1 MHz
- Maximum Leakage Current of 2μA @ 1.5V
- Breakdown Voltage of 1.9V @ 1mA
- IEC61000-4-2 Compliance 15kV Air, 8kV Contact Discharge
- Industry Standard SOT23 Package

APPLICATIONS

- High Speed Data Transmission Lines
- Microcontroller and Microprocessor I/O Interfaces
- Portable Consumer Electronics
- Instrumentation Equipment
- LAN/WAN Equipment



MAXIMUM RATINGS

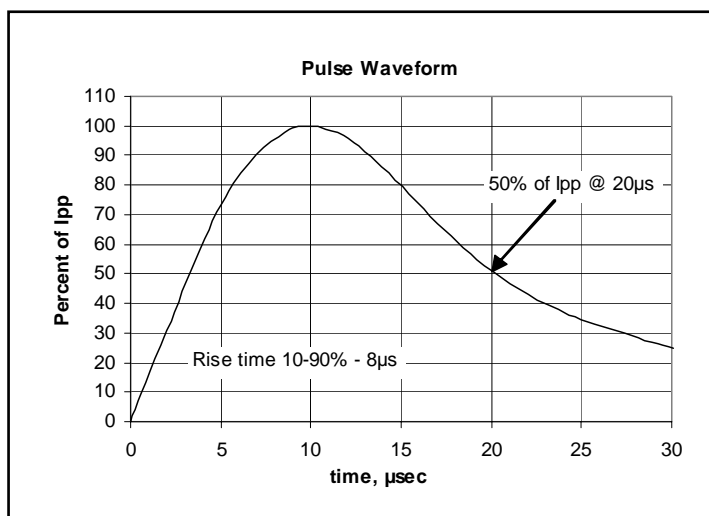
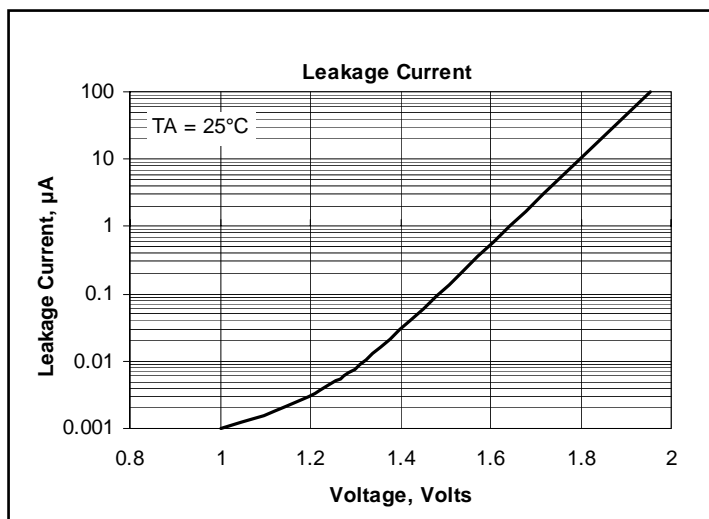
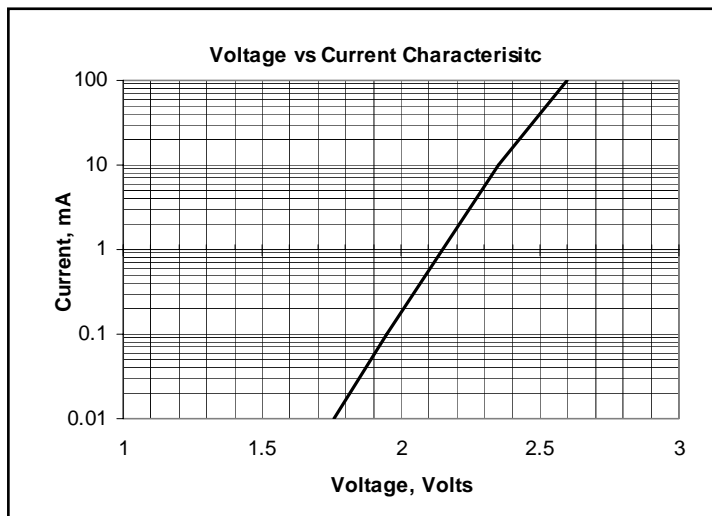
Rating	Symbol	Value	Units
Peak Pulse Power (8/20μs Waveform)	P _{pp}	50	W
ESD Voltage (HBM)	V _{ESD}	>25	kV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C
Lead Soldering Temperature (max 10 s)	T _L	260	°C

ELECTRICAL CHARACTERISTICS T_j = 25°C

Parameter	Symbol	Conditions	Min	Typical	Max	Units
Reverse Stand-Off Voltage	V _{WRM}				1.5	V
Reverse Breakdown Voltage	V _{BR}	I _{BR} = 100μA	1.75	1.8		V
		I _{BR} = 1mA	1.9	2.2		V
Reverse Leakage Current	I _R	V _R = 1.5V			2.0	μA
Clamping Voltage (8/20μs)	V _c	I _{pp} = 1 A			4	V
Clamping Voltage (8/20μs)	V _c	I _{pp} = 3 A			7	V
Maximum Peak Pulse Current	I _{pp}	8/20 μs Waveform			5	A
Off State Junction Capacitance	C _j	0 Vdc Bias f = 1MHz Between I/O pins and pin 3		6	10	pF

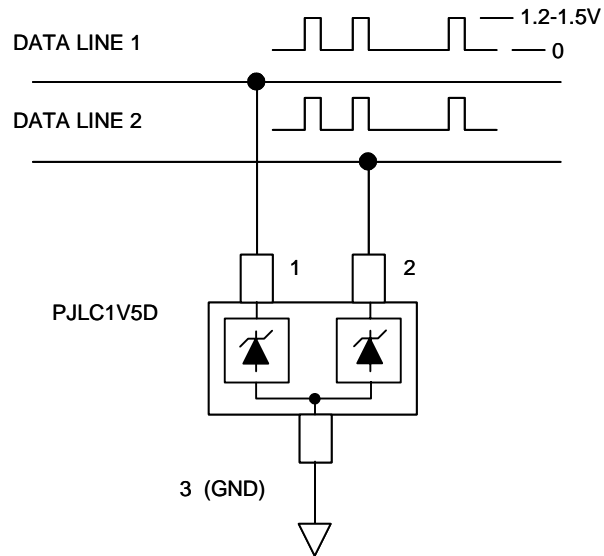


TYPICAL CHARACTERISTICS $T_j = 25^\circ\text{C}$

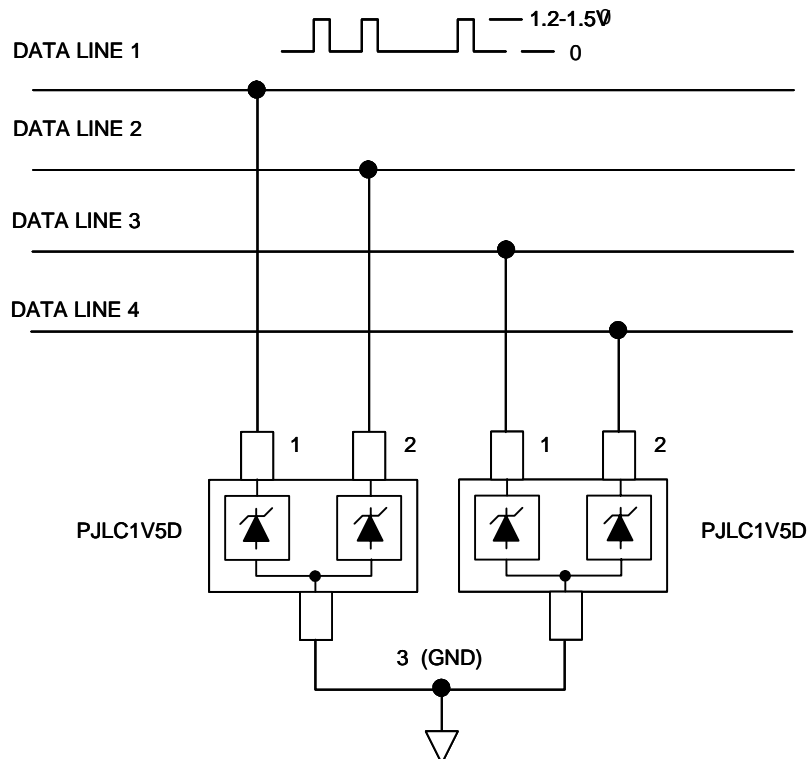


TYPICAL APPLICATION INFORMATION

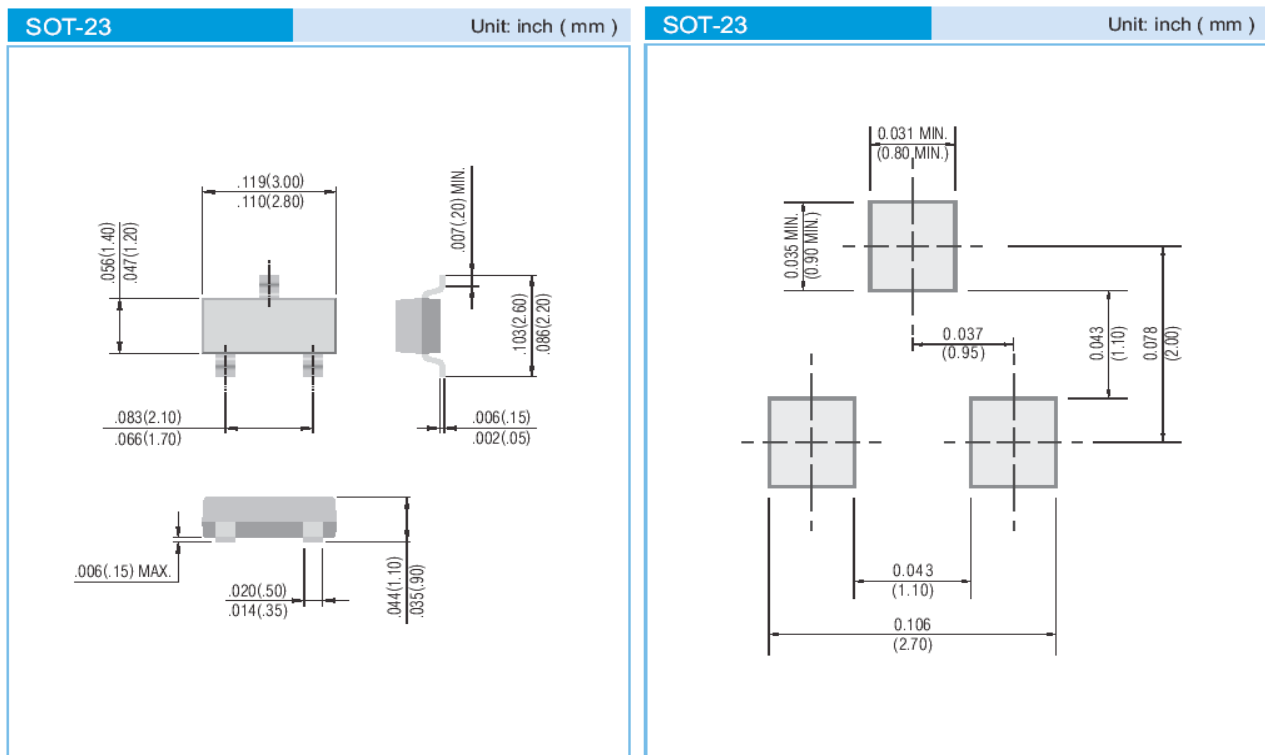
ESD Protection for two Data Lines



ESD Protection for Four Data Lines



PACKAGE AND PAD LAYOUT DIMENSIONS



Device	Marking Code
PJLC1V5	T1L
PJLC1V5D	T2L

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