



PJSLC05 SERIES

ULTRA LOW CAPACITANCE SINGLE TVS FOR HIGH SPEED DATA LINES

This Transient Voltage Suppressor is intended to Protect Sensitive Equipment against Electrostatic Discharge and Transient Events as well to offer a Minimum insertion loss in high speed data communication transmission line ports used in Portable Consumer, Computing and Networking Applications.

SPECIFICATION FEATURES

- Working Peak Reverse Voltage Range-5,12,15 and 24V
- Maximum Leakage Current of 5 μ A
- IEC61000-4-2 Compliance 15kV Air, 8kV Contact Discharge
- IEC61000-4-5 17 Amps peak, 8/20 μ s Waveform
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case: SOT-23, Plastic

Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.008gram

Marking:

PJSLC05	PJSLC12	PJSLC15	PJSLC24
T1S	S12	S15	S24

APPLICATIONS

Mobile Phones and accessories

Universal Serial Bus (USB1.1 and 2.0) Applications

Portable Consumer Electronics

Instrumentation Equipment

Ethernet 10,100 and 1000 Base Port Protection

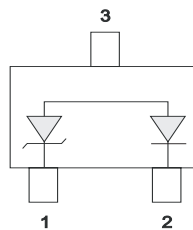
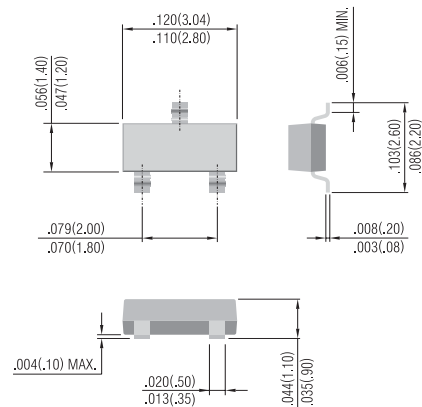


Fig.24

SOT-23

Unit: inch (mm)



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power 8/20 μ s Waveform	P _{PP}	400	W
Peak Pulse Power 8/20 μ s Waveform	I _{PP}	17	A
ESD Voltage (HBM)	V _{ESD}	>25	kV
Operating Temperature Range	T _J	-55 to +125	°C
Storage Thermal Resistance	T _{STG}	-55 to +150	°C
Lead Soldering Temperature (max 10 secs)	T _L	260	°C



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ELECTRICAL CHARACTERISTICS $T_J=25^{\circ}\text{C}$

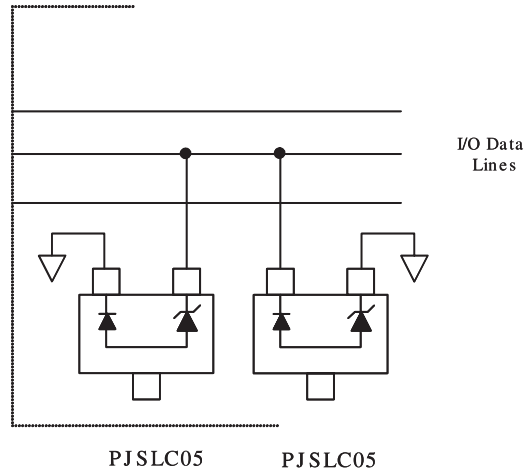
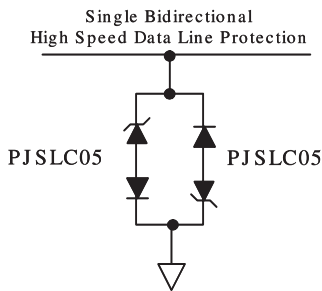
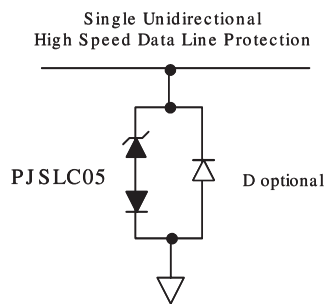
PJSLC05						
Parameter	Symbol	Condition	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V_{WRM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1\text{mA}$	6	-	-	V
Reverse Leakage Current	I_R	$V_R=5\text{V}$	-	-	5	μA
Clamping Voltage (8x20 μsec)	V_C	$I_{PP}=1\text{Amps}$	-	-	9.8	V
Clamping Voltage _{ee} (8x20 μsec)	V_C	$I_{PP}=5\text{Amps}$	-	-	11	V
Off State Junction Capacitance	C_J	0 Vdc Bias f=1MHz Between pins 1 and 2	-	-	1.2	pF
PJSLC12						
Parameter	Symbol	Condition	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V_{WRM}		-	-	12	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1\text{mA}$	13.3	-	-	V
Reverse Leakage Current	I_R	$V_R=12\text{V}$	-	-	1	μA
Clamping Voltage (8x20 μsec)	V_C	$I_{PP}=1\text{Amps}$	-	-	19	V
Clamping Voltage _{ee} (8x20 μsec)	V_C	$I_{PP}=5\text{Amps}$	-	-	24	V
Off State Junction Capacitance	C_J	0 Vdc Bias f=1MHz Between pins 1 and 2	-	-	1.2	pF
PJSLC15						
Parameter	Symbol	Condition	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V_{WRM}		-	-	15	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1\text{mA}$	16.7	-	-	V
Reverse Leakage Current	I_R	$V_R=15\text{V}$	-	-	1	μA
Clamping Voltage (8x20 μsec)	V_C	$I_{PP}=1\text{Amps}$	-	-	24	V
Clamping Voltage _{ee} (8x20 μsec)	V_C	$I_{PP}=5\text{Amps}$	-	-	30	V
Off State Junction Capacitance	C_J	0 Vdc Bias f=1MHz Between pins 1 and 2	-	-	1.2	pF



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PJSLC24						
Parameter	Symbol	Condition	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V_{WRM}		-	-	24	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1mA$	26.7	-	-	V
Reverse Leakage Current	I_R	$V_R=24V$	-	-	1	μA
Clamping Voltage (8x20 μsec)	V_C	$I_{PP}=1Amps$	-	-	43	V
Clamping Voltage (8x20 μsec)	V_C	$I_{PP}=5Amps$	-	-	55	V
Off State Junction Capacitance	C_J	0 Vdc Bias f=1MHz Between pins 1 and 2	-	-	1.2	pF

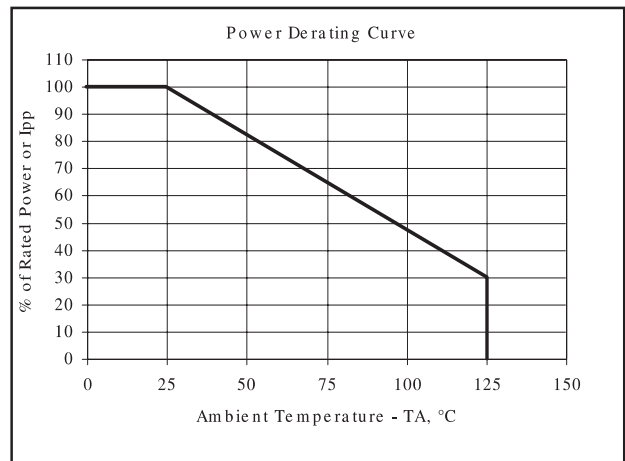
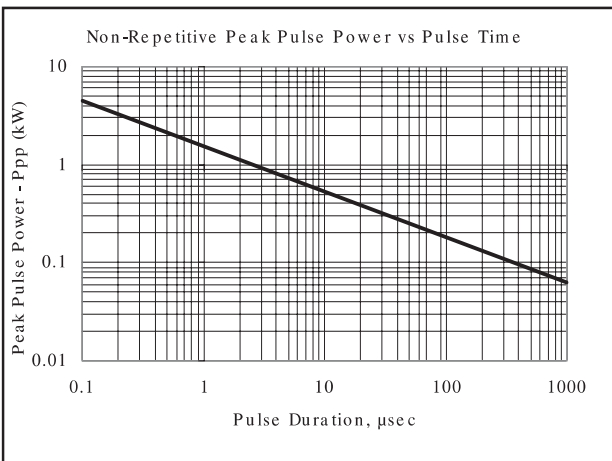
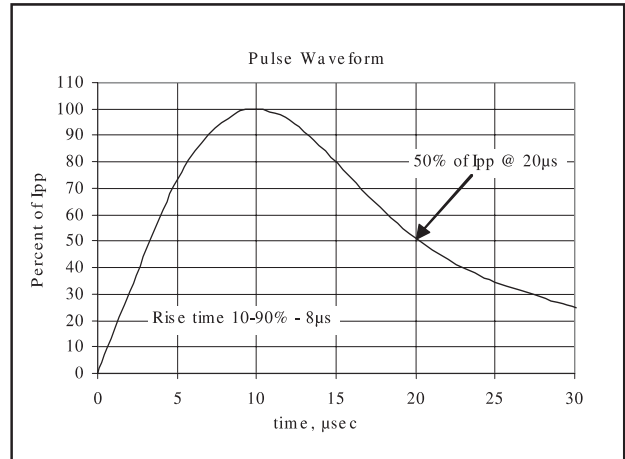
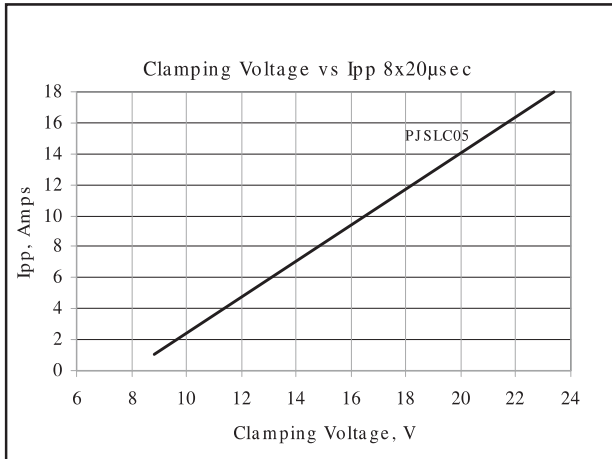
TYPICAL APPLICATION CONFIGURATIONS





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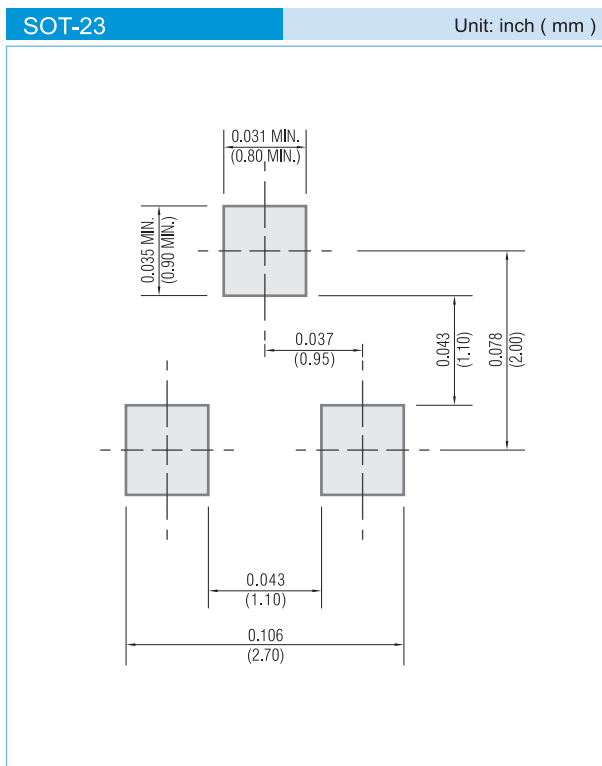
TYPICAL CHARACTERISTIC CURVES





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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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