



# PJDLC05~PJDLC24

**VOLTAGE** 5 to 24 Volts    **POWER** 400 Watts

**SOT-23**    Unit: inch (mm)

## ULTRA LOW CAPACITANCE DUAL TRANSIENT VOLTAGE SUPPRESSOR FOR HIGH SPEED DATA LINES

This transient overvoltage suppressor is intended to protect sensitive equipment against electrostatic discharge events as well to offer a minimum insertion loss in data transmission lines in communications ports used in portable consumer, computing and networking applications. This dual transient voltage suppressor comes in a single SOT-23, offering board space reduction, where the application requires it.

### FEATURES

- Improved leakage current, maximum of 5  $\mu\text{A}$  @ 5Vdc
- Maximum capacitance @ 0 Vdc Bias of 1.2 pF between terminals 1-3 or terminals 2-3
- IEC61000-4-2 esd 15kV Air, 8kV contact compliance
- IEC61000-4-5 lightning 17 Amps peak, 8x20 usec waveform
- Pb free product are available : 99% Sn above can meet RoHS environment substance directive request

### MECHANICAL DATA

Case: SOT-23, plastic

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

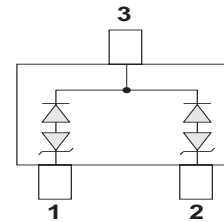
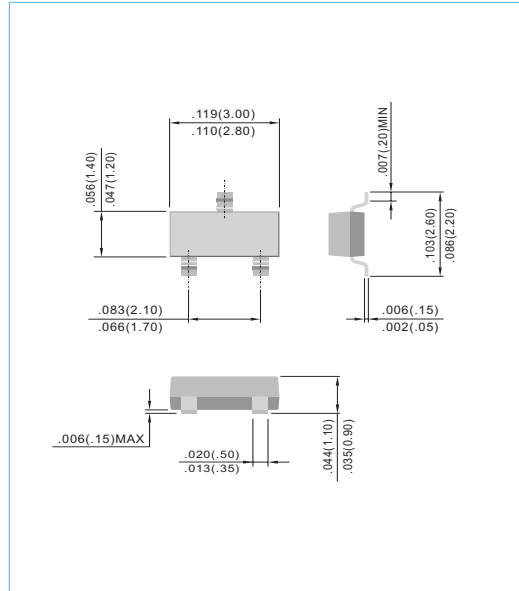
Approx. Weight : 8mg

Marking : PJDLC05 : T2S

PJDLC12 : DJ2

PJDLC15 : DJ5

PJDLC24 : DJ4



### MAXIMUM RATINGS

PJDLC05						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				5	V
Reverse Breakdown Voltage	$V_{BR}$	$I_t = 1\text{mA}$	6			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5\text{V}$ , $T = 25^\circ\text{C}$			20	$\mu\text{A}$
Clamping Voltage	$V_C$	$I_{PP} = 1\text{A}$ $t_p = 8/20 \mu\text{S}$			9.8	A
Clamping Voltage	$V_C$	$I_{PP} = 5\text{A}$ $t_p = 8/20 \mu\text{S}$			11	V
Peak Pulse Current	$I_{PP}$	$t_p = 8/20 \mu\text{S}$			17	A
Junction Capacitance	$C_J$	Pin 1 to 2 $V_R = 0\text{V}$ , $f = 1\text{MHZ}$			5	pF



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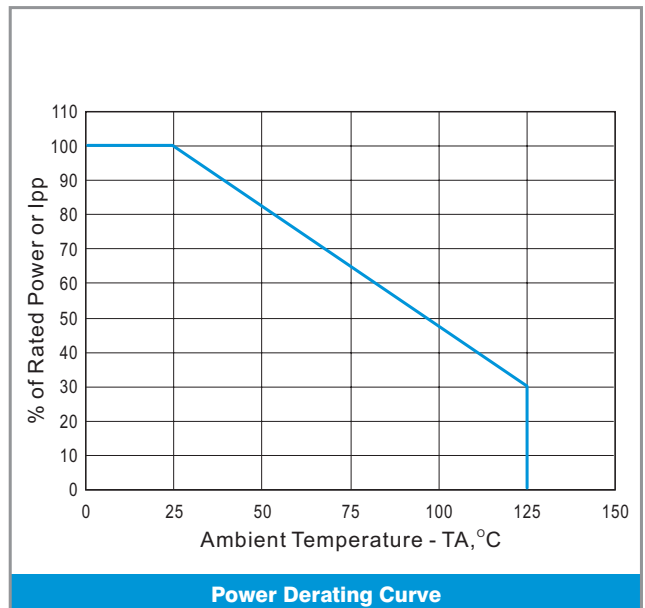
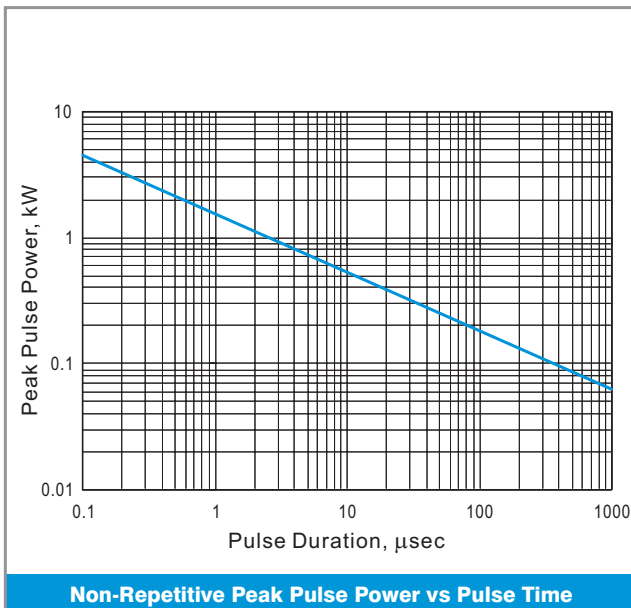
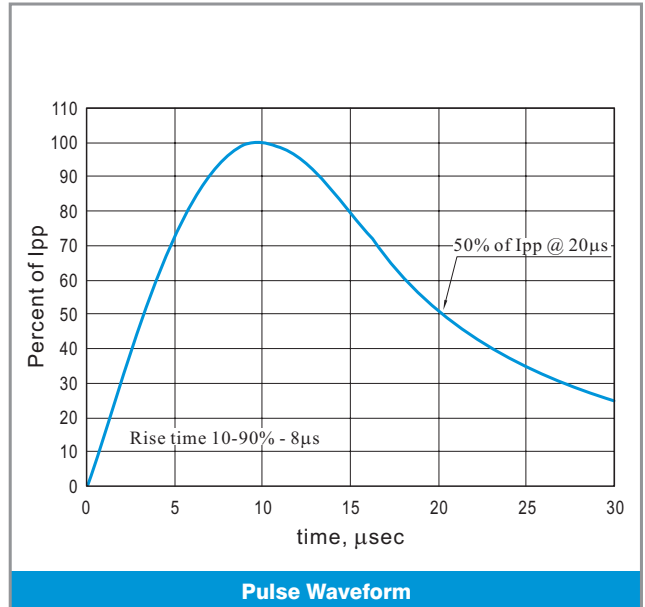
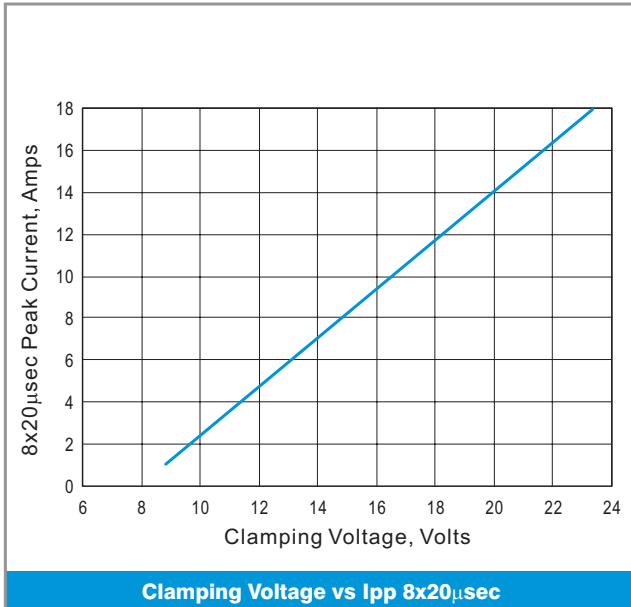
PJDLC12						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				12	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	13.3			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5V,$ $T = 25^{\circ}C$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ $t_p = 8/20 \mu S$			19	A
Clamping Voltage	$V_C$	$I_{PP} = 5A$ $t_p = 8/20 \mu S$			24	V
Peak Pulse Current	$I_{PP}$	$t_p = 8/20 \mu S$			12	A
Junction Capacitance	$C_J$	Pin 1 to 2 $V_R = 0V, f = 1MHZ$			5	pF

PJDLC15						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	26.7			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5V,$ $T = 25^{\circ}C$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ $t_p = 8/20 \mu S$			43	A
Clamping Voltage	$V_C$	$I_{PP} = 5A$ $t_p = 8/20 \mu S$			55	V
Peak Pulse Current	$I_{PP}$	$t_p = 8/20 \mu S$			5	A
Junction Capacitance	$C_J$	Pin 1 to 2 $V_R = 0V, f = 1MHZ$			5	pF

PJDLC24						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	26.7			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5V,$ $T = 25^{\circ}C$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 1A$ $t_p = 8/20 \mu S$			43	A
Clamping Voltage	$V_C$	$I_{PP} = 5A$ $t_p = 8/20 \mu S$			55	V
Peak Pulse Current	$I_{PP}$	$t_p = 8/20 \mu S$			5	A
Junction Capacitance	$C_J$	Pin 1 to 2 $V_R = 0V, f = 1MHZ$			5	pF

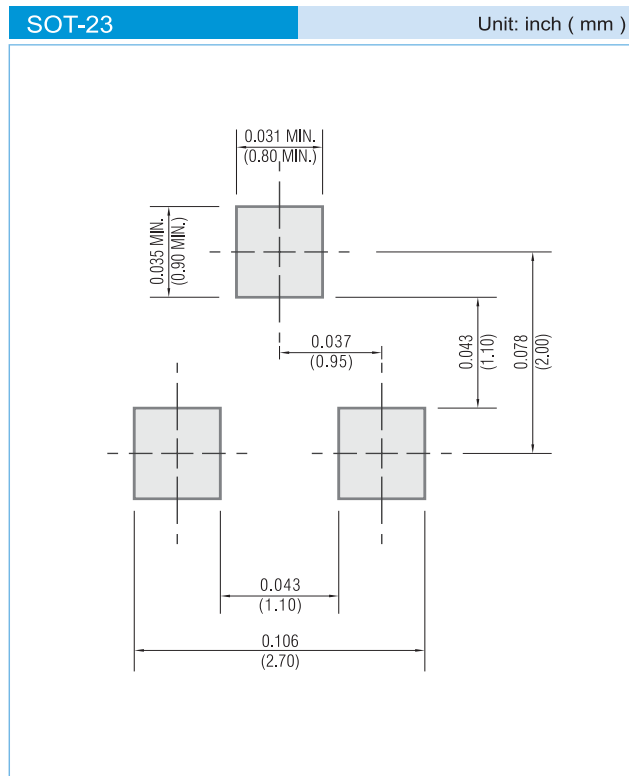


## RATING AND CHARACTERISTIC CURVES





## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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

## LEGAL STATEMENT

### IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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