250 WATT TVS COMPONENT



DESCRIPTION

The PLW0501H is a transient voltage suppressor array designed to protect applications such as wireless telecommunication devices, PCMCIA cards and portable electronics. This device is available in a unidirectional configuration with a working voltage of 5.0V and a minimum breakdown voltage of 6.0V. The PLW0501H is rated at 250W peak pulse power (8/20µs), which is sufficient protection for tertiary type lightning threats at key interface locations.

The PLW0501H is ideally suited to protect data I/O ports against ESD and EFT. This device meets the requirements of IEC 61000-2 and IEC 61000-4-4. Packaged in a SC-79 configuration, this device can be substituted for similar 0803 outlines.

FEATURES

- Compatible with IEC 61000-4-2 (ESD): Air 15kV, Contact 8kV
- Compatible with IEC 61000-4-4 (EFT): 40A, 5/50ns
- 250 Watts Peak Pulse Power per Line (tp = 8/20μs)
- Cable Discharge Event (CDE) Protection
- Replacement for MLV (0803)
- One Unidirectional Line of Protection
- Unidirectional Configuration
- RoHS Compliant
- REACH Compliant

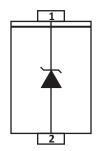
MECHANICAL CHARACTERISTICS

- Molded JEDEC SC-79 Package
- Approximate Weight: 2 milligrams
- Lead-Free Pure-Tin Plating (Annealed)
- Solder Reflow Temperature:
 - Pure-Tin Sn, 100: 260-270°C
- 8mm Tape and Reel Per EIA Standard 481
- Flammability Rating UL 94V-0

APPLICATIONS

- Ethernet 10/100/1000 Base T
- SMART Phones
- Portable Electronics

PIN CONFIGURATION

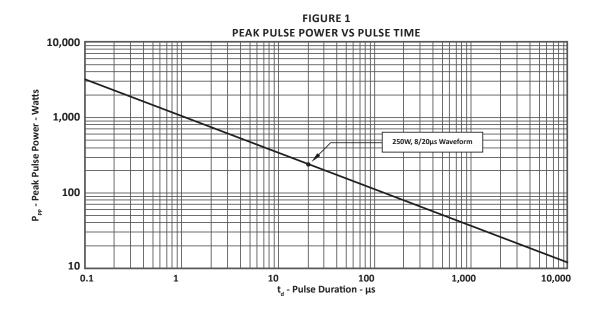


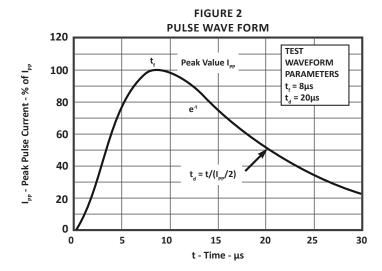
TYPICAL DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified								
PARAMETER	SYMBOL	VALUE	UNITS					
Peak Pulse Power (tp = 8/20μs) - See Figure 1	P _{pp}	250	Watts					
Peak Pulse Current (tp = 8/20μs)	I _{pp}	16	Amps					
Operating Temperature	T _A	-55 to 150	°C					
Storage Temperature	T _{stg}	-55 to 150	°C					
Soldering Temperature for 10 seconds	T _L	265	°C					

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified											
PART NUMBER	DEVICE RATED MINIMUM TYPICAL MAXIMUM MAXIMUM MAXIMUM STAND-OFF BREAKDOWN FORWARD CLAMPING CLAMPING LEAKAGE VOLTAGE VOLTAGE CURRENT (Fig. 2)										
		V _{wм} VOLTS	@ 1mA V _(BR) VOLTS	@ 100mA V _F VOLTS	@ I _p = 5A V _c VOLTS	@ I _p = 16A V _c VOLTS	@V _{wм} Ι _D μΑ	@0V, 1MHz C pF			
PLW0501H	U5	5.0	6.0	0.8	9.8	12.5	5	120			

TYPICAL DEVICE CHARACTERISTICS





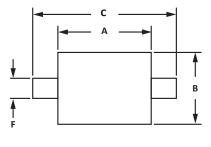


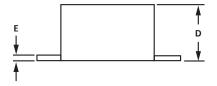
SC-79 PACKAGE INFORMATION

OUTLINE DIMENSIONS								
DIM	MILLIN	IETERS	INCHES					
	MIN	MAX	MIN	MAX				
Α	1.10	1.30	0.043	0.049				
В	0.70	0.90	0.028	0.035				
С	1.50	1.70	0.059	0.066				
D	0.50	0.70	0.020	0.028				
E	0.08 0.20		0.003	0.008				
F	0.30	BSE	0.012	2 BSE				

NOTES

- 1. Dimensioning and tolerances per ANSI Y14.M, 1985.
- 2. Controlling dimension: millimeters.
- 3. Dimensions are exclusive of mold flash and metal burrs.

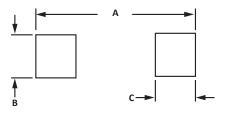




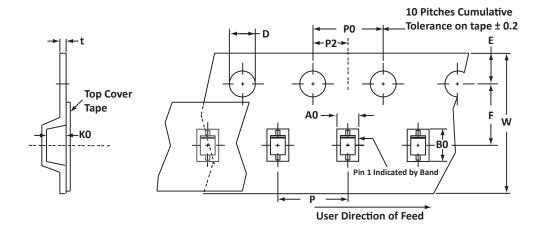
PAD LAYOUT DIMENSIONS								
DIM	MILLIN	IETERS	INCHES					
DIM	MIN	MAX	MIN	MAX				
А	1.85 2.03		0.070	0.080				
В	0.38	0.64	0.015	0.025				
С	0.25 0.51		0.010	0.020				

NOTES

1. Controlling dimension: millimeters



TAPE AND REEL



SPECIFICATIONS												
REEL DIA.	TAPE WIDTH	A0	В0	ко	D	E	F	W	P0	P2	Р	tmax
178mm (7")	8mm	1.00 ± 0.10	1.95 ± 0.05	0.075 ± 0.05	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25

NOTES

- 1. Dimensions are in millimeters.
- 2. Surface mount product is taped and reeled in accordance with EIA-481.
- 3. Empty pocket between sprocket holes.
- 4. Suffix T73 = 7" Reel 3,000 pieces per 8mm tape.
- 5. Marking on Part marking code (see page 2), polarity band and date code.

Package outline, pad layout and tape specifications per document number 06037.R3 8/10.

ORDERING INFORMATION									
BASE PART NUMBER LEADFREE SUFFIX TAPE SUFFIX QTY/REEL REEL SIZE TUBE QTY									
PLW0501H	-LF	-T73	3,000	7"	n/a				
This device is only available in a Lead-Free configuration.									

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COMPANY INFORMATION

COMPANY PROFILE

In business more than 20 years, ProTek Devices™ is a privately-held company located in Tempe, Arizona, that offers a product line of transient voltage suppressors (TVS); avalanche breakdown diodes; steering diode TVS arrays and other surge suppressor component products. These TVS devices protect electronic systems from the effects of lightning, electrostatic discharge (ESD), nuclear electromagnetic pulses (NEMP), inductive switching and EMI / RFI. ProTek Devices also offers high performance interface and linear products that include analog switches; multiplexers; LED drivers; audio control ICs; RF and related high frequency products. The analog devices work in a host of consumer; industrial; automotive and other applications.

CONTACT US

Corporate Headquarters

2929 South Fair Lane Tempe, Arizona 85282 USA

By Telephone

General: 602-431-8101

Sales: & Marketing: 602-414-5109 Customer Service: 602-414-5114

Product Technical Support: 602-414-5107

By Fax

General: 602-431-2288

By E-mail:

Sales: sales@protekdevices.com

Customer Service: service@protekdevices.com Technical Support: support@protekdevices.com

ProTek Devices (Asia Pacific) Pte. Ltd.

8 Ubi Road 2, #06-19

Zervex

Singapore - 408538 Tel: +65-67488312 Fax: +65-67488313

Web

www.protekdevices.com

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