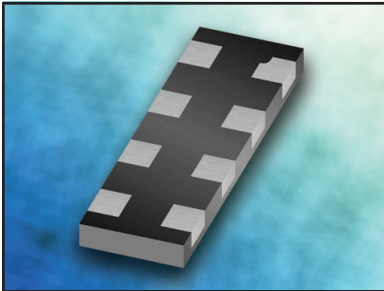


ULTRA LOW CAPACITANCE TVS ARRAY



DFN-8 PACKAGE

DESCRIPTION

The PLR2210 is an ultra low capacitance TVS array designed to provide electrostatic discharge (ESD) protection for high-speed data interfaces. With a typical capacitance of 0.6pF, the PLR2210 is designed to protect sensitive systems against over-voltage and over-current transient events. The PLR2210 is compliant with IEC 61000-4-2, IEC 61000-4-4 and IEC 61000-6-5. The device is available in a DFN-8 package configuration and offers two line pairs of protection. The PLR2210 is ideal for high-speed port and frequency applications such as Gigabit Ethernet.

FEATURES

- Compatible with IEC 61000-4-2 (ESD): Air 30kV, Contact 30kV
- Compatible with IEC 61000-4-4 (EFT): 40A, 5/50ns
- Compatible with IEC 61000-4-5 (Surge): 12A, 8/20 μ s
- 170 Watts Peak Pulse Power per Line($t_p = 8/20\mu$ s)
- Provides Protection for Two Line Pairs
- Low Leakage Current: 10nA @ V_{RWM} (Typical)
- Low Operating and Clamping Voltage
- Eac I/O Pin can Withstand Over 1000 ESD Strikes for ± 8 kV Contact Discharge
- Package Optimized for High-Speed Lines
- RoHS Compliant
- REACH Compliant

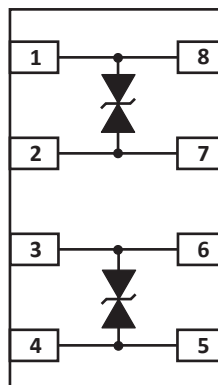
APPLICATIONS

- 10GBase-T Ethernet Ports
- 10/100/1000M Ethernet Ports
- WAN/LAN Equipment
- Desktops, Servers and Notebooks
- Cellular Phones
- Switching Systems
- Audio/Video Inputs

MECHANICAL CHARACTERISTICS

- Molded DFN-8 Package
- Approximate Weight: 7 milligrams
- Lead-Free
- Solder Reflow Temperature - 260-270°C
- Flammability Rating UL 94V-0
- 8mm Tape and Reel per EIA Standard 481

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}	170	Watts
Peak Pulse Current (tp = 8/20μs)	I _{PP}	12	Amps
Operating Temperature	T _J	-55 to 125	°C
Storage Temperature	T _{STG}	-55 to 150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MINIMUM SNAPBACK VOLTAGE	MAXIMUM CLAMPING VOLTAGE	MAXIMUM CLAMPING VOLTAGE	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
		V _{RWM} VOLTS	@ 2μA V _(BR) VOLTS	@ 1μA V _(BR) VOLTS	@ 1mA V _{SB} VOLTS	@ I _p = 2A V _C VOLTS	@ I _p = 10A V _C VOLTS	@ V _{WM} I _D μA	@ 2.5V, 1MHz C pF
PLR2210	2210	2.5	2.7	3.5	3.3	6.0	11.5	0.05	0.6

TYPICAL DEVICE CHARACTERISTICS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

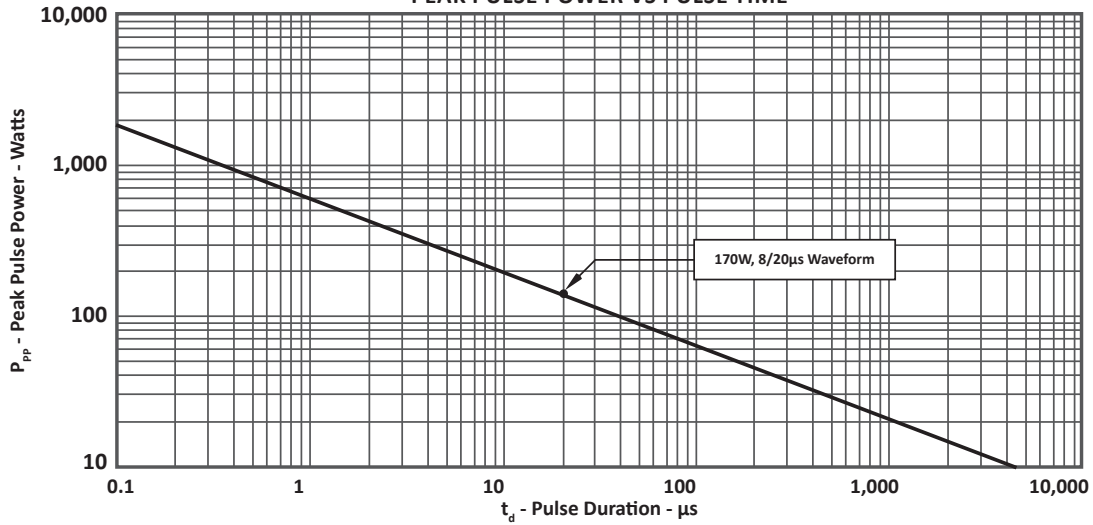


FIGURE 2
PULSE WAVE FORM

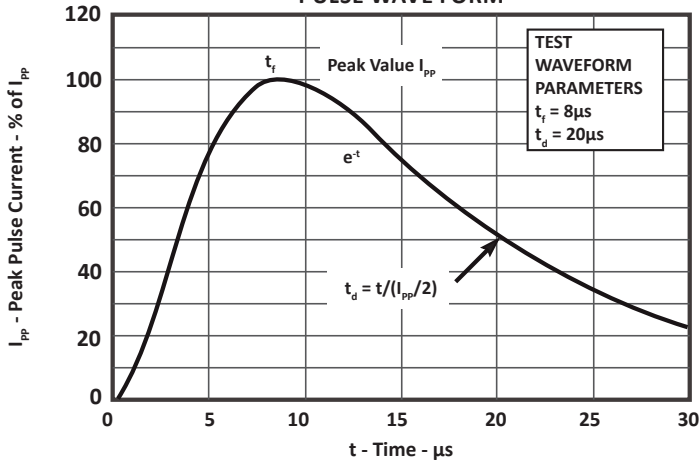
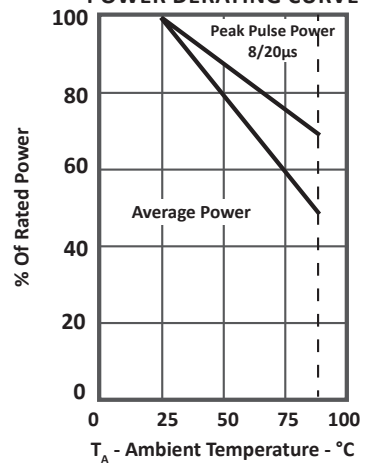


FIGURE 3
POWER DERATING CURVE



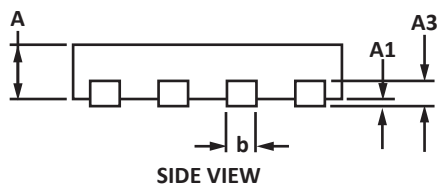
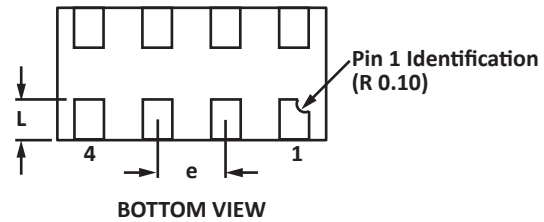
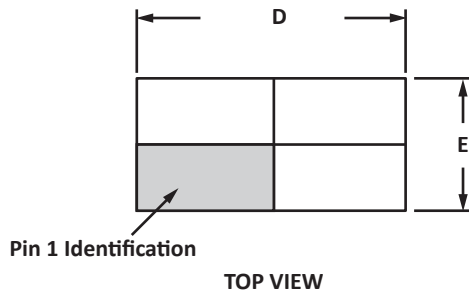
DFN-8 PACKAGE INFORMATION

OUTLINE DIMENSIONS

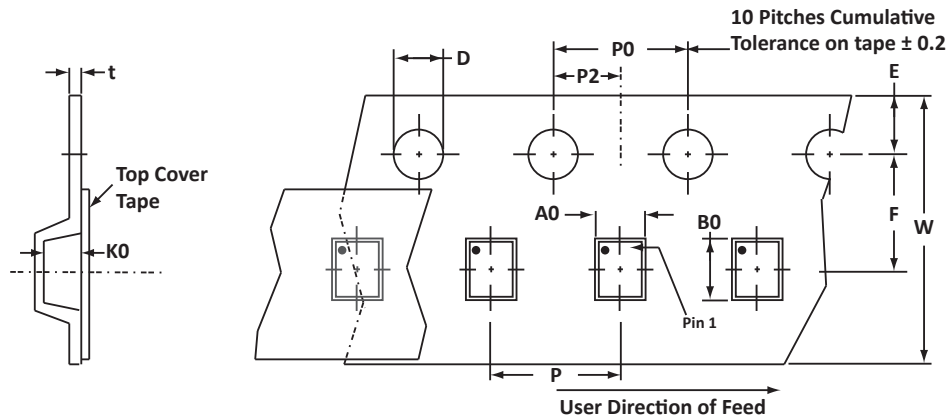
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.370	0.430	0.015	0.017
A1	0.000	0.050	0.000	0.002
A3	0.130 REF		0.005 REF	
b	0.200	0.300	0.008	0.012
D	1.900	2.100	0.075	0.083
E	0.900	1.100	0.035	0.043
R	0.050	0.150	0.002	0.016
e	0.500 BSC		0.020 BSC	
L	0.300	0.400	0.012	0.016

NOTES

- Controlling dimension: millimeters.
- Dimensioning and tolerances per ANSI Y14.M, 1985.



TAPE AND REEL



SPECIFICATIONS

REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	1.24 ± 0.01	2.28 ± 0.01	0.65 ± 0.01	1.55 ± 0.01	1.75 ± 0.01	3.50 ± 0.01	8.00 ± 0.01	4.00 ± 0.01	2.00 ± 0.01	4.00 ± 0.01	0.25

NOTES

- Dimensions are in millimeters.
- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix - T7 = 7" Reel - 5,000 pieces per 8mm tape.
- Marking on Part - marking code (see page 2).

ORDERING INFORMATION

BASE PART NUMBER	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
PLR2210	N/A	-T7	5,000	7"	n/a

This device is only available in a Lead-Free configuration.

COMPANY INFORMATION

COMPANY PROFILE

In business more than 25 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection and overcurrent protection components. These include transient voltage suppressor array (TVS arrays) avalanche breakdown diode, steering diode TVS array and electronics SMD chip fuses. These components deliver circuit protection in electronic systems from numerous overvoltage and overcurrent events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices also offers LED wafer die for ESD protection and related high frequency products. ProTek Devices is ISO 9001:2015 certified.

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:

Asia Sales: asiasales@protekdevices.com
Europe Sales: europesales@protekdevices.com
U.S. Sales: ussales@protekdevices.com
Distributor Sales: distysales@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

COPYRIGHT © ProTek Devices 2016 - This literature is subject to all applicable copyright laws and is not for resale in any manner.

SPECIFICATIONS: ProTek reserves the right to change the electrical and or mechanical characteristics described herein without notice.

DESIGN CHANGES: ProTek reserves the right to discontinue product lines without notice and that the final judgement concerning selection and specifications is the buyer's and that in furnishing engineering and technical assistance. ProTek assumes no responsibility with respect to the selection or specifications of such products. ProTek makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does ProTek assume any liability arising out of the application or use of any product or circuit and specifically disclaims any and all liability without limitation special, consequential or incidental damages.

LIFE SUPPORT POLICY: ProTek Devices products are not authorized for use in life support systems without written consent from the factory.