ULTRA LOW CAPACITANCE TVS ARRAY



DESCRIPTION

The PAM19DF2L0521P is an ultra low capacitance transient voltage suppressor array, designed to protect automotive applications from the damaging effects of Electrostatic Discharge and Electrical Fast Transients.

The PAM19DF2L0521P meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. This device offers an ultra low capacitance and low leakage current in a miniature DFN-2-0402 package.

FEATURES

- AEC-Q101 Qualified
- Compatible with IEC 61000-4-2 (ESD)
- Compatible with IEC 61000-4-4 (EFT)
- Compatible with IEC 61000-4-5 (Surge)
- 20 Watts Peak Pulse Power per Line (tp = 8/20μs)
- ESD Protection
- · Low Clamping Voltage
- · Protects One Bidirectional Line
- Ultra Low Capacitance: 0.6 pF
- · RoHS Compliant
- REACH Compliant

MECHANICAL CHARACTERISTICS

- Molded JEDEC DFN-2-0402 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

• Automotive Applications

PIN CONFIGURATION





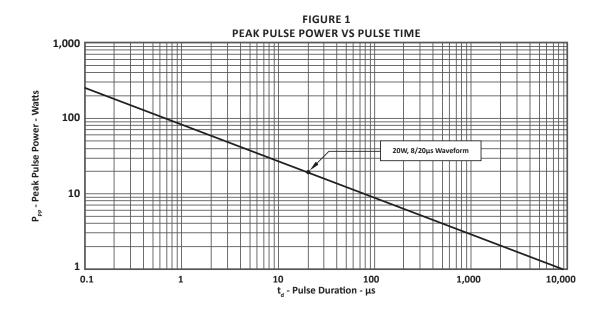
TYPICAL DEVICE CHARACTERISTICS

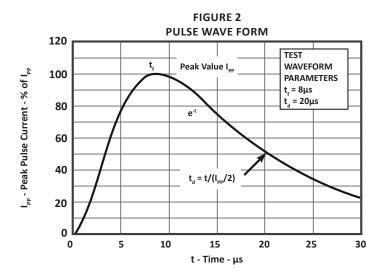
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified							
PARAMETER	VALUE	UNITS					
Peak Pulse Power (tp = 8/20μs) - See Figure 1	P _{PP}	20	Watts				
Operating Temperature	T _A	-55 to 150	°C				
Storage Temperature	T _{stg}	-55 to 150	°C				

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified										
PART NUMBER	DEVICE MARKING	RATED MINIMUM MAXIMUM STAND-OFF BREAKDOWN CLAMPING VOLTAGE VOLTAGE (Fig. 2)		CLAMPING VOLTAGE	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE				
		V _{wм} VOLTS	@ 1mA V _(BR) VOLTS	@I _p = 1A V _c VOLTS	@V _{wм} Ι _D μΑ	@0V, 1MHz C _, pF				
PAM19DF2L0521P	S	5.0	6.0	20.0	1	0.6				

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TYPICAL DEVICE CHARACTERISTICS





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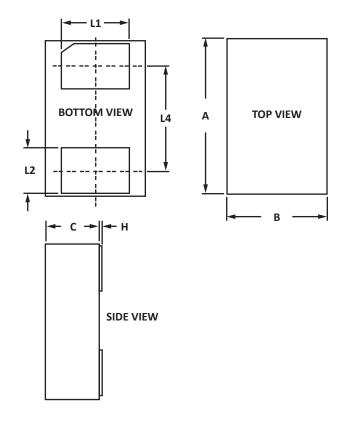


DFN-2-0402 PACKAGE INFORMATION

OUTLINE DIMENSIONS									
DIM	MILLIN	IETERS	INCHES						
	MIN	MAX	MIN	MAX					
А	0.90	1.05	0.035	0.041					
В	0.51	0.65	0.02	0.024					
С	0.51	0.60	0.02	0.024					
Н	0~0.10	0~0.10	0~0.004	0~0.004					
L1	0.45	0.55	0.010	0.014					
L2	0.18	0.30	0.010	0.015					
L4	0.65	BSC	0.026	5 BSC					

NOTES

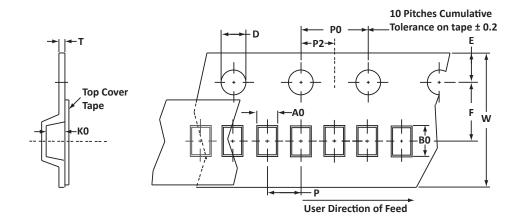
- 1. Dimensioning and tolerances per ANSI Y14.M, 1985.
- 2. Controlling dimension: inches.
- 3. Dimensions are exclusive of mold flash and metal burrs.



PAD LAYOUT DIMENSIONS									
DIM	MILLIN	1ETERS	INCHES						
	MIN	MAX	MIN	MAX					
А	1.30	1.50	0.051	0.059					
В	0.60	0.70	0.024	0.028					
C 0.40 0.55 0.016 0.022									
NOTES 1. Controlling dimension: inches.									

TES	rolling dimension	n: inches.		
	0.40	0.55	0.016	0.022
	0.60	0.70	0.024	0.028
,	1.30	1.50	0.031	0.039

TAPE AND REEL



SPECIFICATIONS												
REEL DIA.	TAPE WIDTH	A0	В0	ко	D	E	F	w	P0	P2	Р	tmax
178mm (7")	8mm	0.70 ± 0.05	1.15 ± 0.10	0.56 ± 0.05	1.55 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	2.00 ± 0.05	0.25

NOTES

- 1. Dimensions are in millimeters.
- 2. Surface mount product is taped and reeled in accordance with EIA-481.
- 3. Suffix T710 = 7" Reel 10,000 pieces per 8mm tape.
- 4. Marking on Part marking code (see page 2).

Package outline, pad layout and tape specifications per customized specification.

ORDERING INFORMATION								
BASE PART NUMBER LEADFREE SUFFIX TAPE SUFFIX QTY/REEL REEL SIZE TUBE QT								
PAM19DF2L0521P	n/a	-T710	10,000	7"	n/a			
This device is only available in a Lead-Free configuration.								



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.

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