

STANDARD CAPACITANCE TVS ARRAY**APPLICATIONS**

- ✓ Sensors
- ✓ Automotive Power Bus

IEC COMPATIBILITY (EN61000-4)

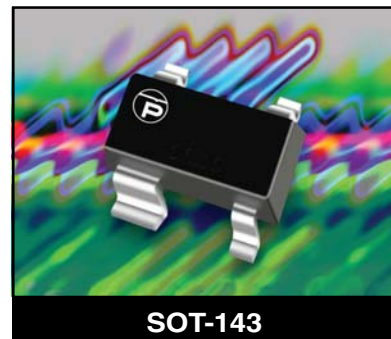
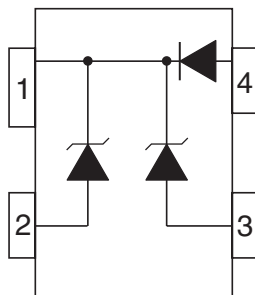
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 μ s - Level 2(Line-Gnd) & Level 3(Line-Line)

FEATURES

- ✓ 300 Watts Peak Pulse Power per Line ($t_p = 8/20\mu$ s)
- ✓ ESD Protection > 40 kilovolts
- ✓ Stand-Off Voltage: 33V
- ✓ Blocking Rectifier
- ✓ Provides Two (2) Lines of Protection
- ✓ Low Leakage Current < 0.1 μ A
- ✓ RoHS Compliant

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SOT-143
- ✓ Weight 9 milligrams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
- ✓ Consult Factory for Leaded Device Availability
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Marking Code

**PIN CONFIGURATION**

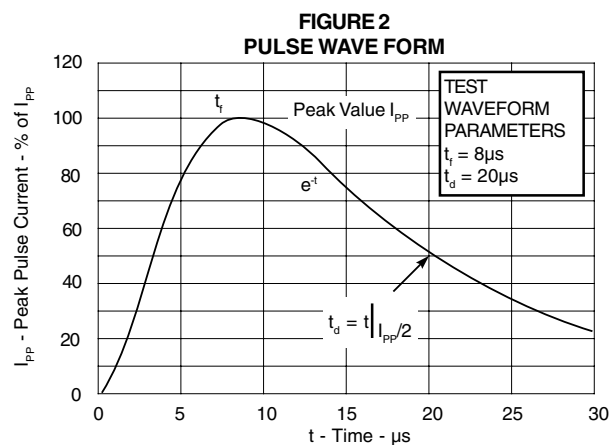
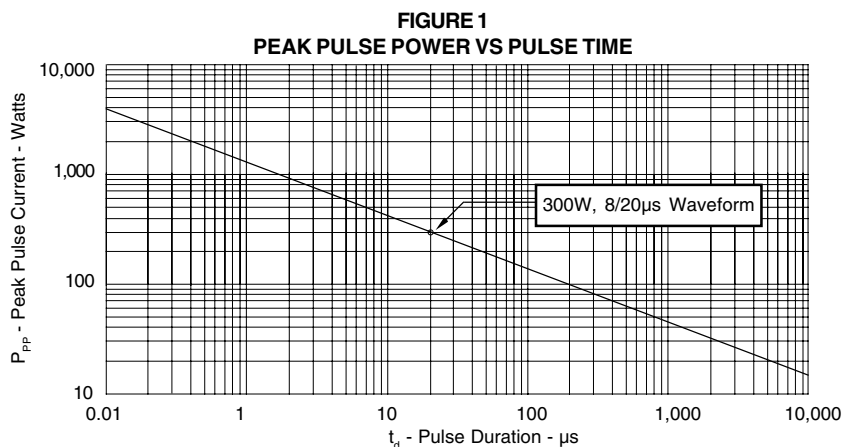
PA36WR-2

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	T_A	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Peak Pulse Power ($t_p = 8/20\mu s$) - See Figure 1	P_{PP}	300	Watts
Forward Surge Rating (1/20s @ 25°C, $I_F = 10mA$)	V_F	1.5	Volts
Repetitive Peak Reverse Voltage	V_{RRM}	700	Volts

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER	DEVICE MARKING CODE	MAXIMUM STAND-OFF VOLTAGE (See Note 1)	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM LEAKAGE CURRENT (See Note 1)	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) (See Note 1)	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) (See Note 1)	MAXIMUM CAPACITANCE (See Note 1)
		V_{WM} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ V_{WM} I_D μA	I_P @ 1.9A V_C VOLTS	I_P @ 6A V_C VOLTS	@ 0V, 1 MHz C_j pF
PA36WR-2	P36	33	36	0.1	45	66	45

Note 1: Measured between I/O pins and ground.



PA36WR-2

SOT-143 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE

Technical drawing of the SOT-143 package outline. The top view shows dimensions A (total width), G (lead spacing), L (lead width), B (package width), S (package length), F (lead width), and D (lead spacing). The side view shows dimensions H (package height), C (lead height), R (lead length), J (lead thickness), and K (lead angle). The end view shows dimensions A, G, L, B, S, F, and D.

SOT-143

3D perspective view of the SOT-143 package, showing its rectangular body and two leads.

PACKAGE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.110	0.120
B	1.20	1.39	0.047	0.055
C	0.84	1.14	0.033	0.045
D	0.39	0.50	0.015	0.020
F	0.79	0.93	0.031	0.037
G	1.78	2.03	0.070	0.080
H	0.013	0.10	0.0005	0.004
J	0.08	0.15	0.003	0.006
K	0.46	0.60	0.018	0.024
L	0.445	0.60	0.0175	0.024
R	0.72	0.83	0.028	0.033
S	2.11	2.48	0.083	0.098

MOUNTING PAD

TYPICAL		
DIM	Millimeters	Inches
1	2.85	0.112
2	2.00	0.079
3	1.80	0.071
4	1.90	0.075
5	1.05	0.041
6	2.75	0.108
7	1.20	0.047
8	0.80	0.031
9	0.85	0.033
10	0.85	0.033
11	0.85	0.033

Technical drawing of the mounting pad showing dimensions 1 through 11. Dimensions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11 are indicated on the diagram.

NOTES

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Dimensions are exclusive of mold flash and metal burrs.

TAPE & REEL ORDERING NOMENCLATURE

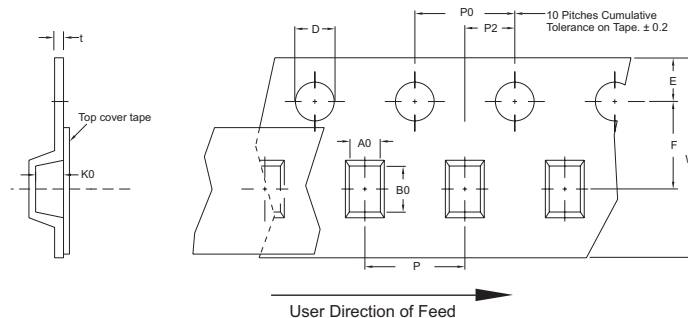
1. Surface mount product is taped and reeled in accordance with EIA-481.
2. Suffix-T7 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., PA36WR-2-T7.
3. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., PA36WR-2-T13.
4. Suffix-LF = Lead-Free, Pure-Tin Plating, i.e., PA36WR-2-LF-T7.

Outline & Dimensions: Rev 2 - 6/06, 06011

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Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	3.10 ± 0.10	2.70 ± 0.10	1.35 ± 0.10	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



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ProTek Devices

2929 South Fair Lane, Tempe, AZ 85282

Tel: 602-431-8101 Fax: 602-431-2288

E-Mail: sales@protekdevices.com

Web Site: www.protekdevices.com