

## STANDARD CAPACITANCE TVS ARRAY

## APPLICATIONS

- ✓ Digital Sensor I/O Ports
- ✓ Control & Monitoring Systems
- ✓ Portable Electronics
- ✓ 36 Volt DC Protection

## IEC COMPATIBILITY (EN61000-4)

- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 12A, 8/20 $\mu$ s - Level 1(Line-Gnd) & Level 2(Line-Line)

## FEATURES

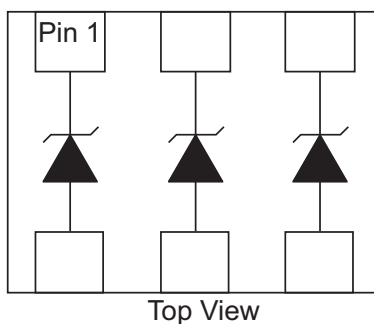
- ✓ 300 Watts Peak Pulse Power per Line ( $t_p = 8/20\mu$ s)
- ✓ 200 Watts Peak Pulse Power per Line ( $t_p = 1.2/50\mu$ s)
- ✓ Low Clamping Voltage
- ✓ Provides Three Lines of Protection
- ✓ RoHS Compliant

## MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC DFN-6 Package
- ✓ Weight 6 milligrams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:  
Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Marking Code



## PIN CONFIGURATION



## DEVICE CHARACTERISTICS

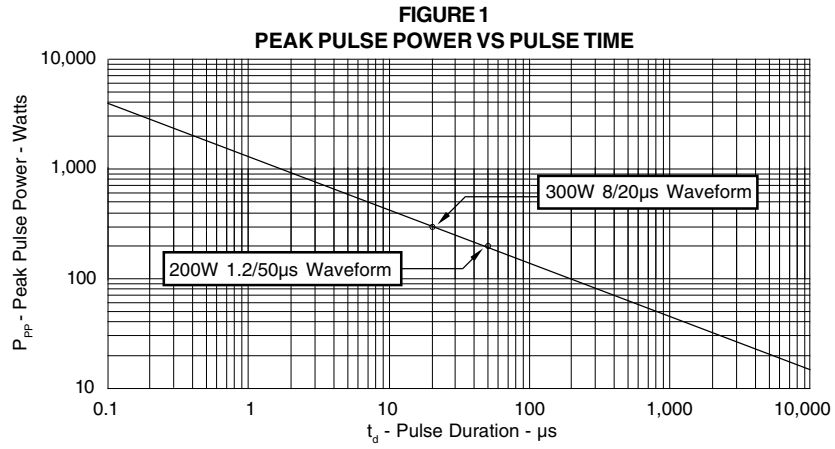
### MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ( $t_p = 8/20\mu\text{s}$ ) - See Figure 1	$P_{PP}$	300	Watts
Peak Pulse Power ( $t_p = 1.2/50\mu\text{s}$ ) - See Figure 1	$P_{PP}$	200	Watts
Forward Voltage @ 100mA	$V_F$	1.3	Volt
Operating Temperature	$T_L$	-55 to 150	°C
Storage Temperature	$T_{STG}$	-55 to 150	°C
Peak Pulse Current - 8/20 $\mu\text{s}$	$I_{PPmax}$	6.0	Amps

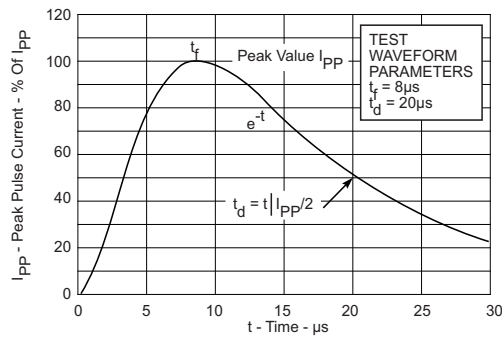
### ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER	DEVICE MARKING CODE	RATED STANDOFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
		$V_{(WM)}$ VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ $I_p = 2.0A$ $V_C$ VOLTS	@ $V_{WM}$ $I_D$ $\mu A$	@ 0V, 1 MHz $C_J$ pF
DFN6-36	D36	33.0	35.0	45.0	5.0	50

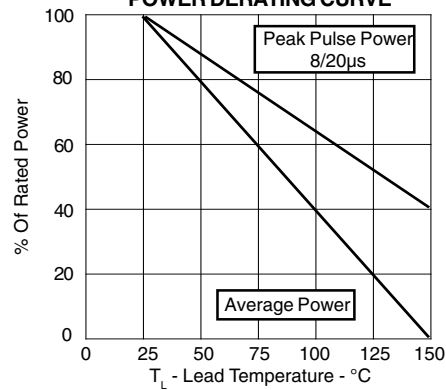
GRAPHS



**FIGURE 2**  
**PULSE WAVE FORM**



**FIGURE 3**  
**POWER DERATING CURVE**



DFN-6 PACKAGE OUTLINE & DIMENSIONS

**PACKAGE OUTLINE**

**PACKAGE DIMENSIONS**

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.45	0.55	0.017	0.021
A3	0.13	0.13	0.005	0.005
b	0.35	0.45	0.013	0.017
D	1.90	2.10	0.074	0.082
E	1.40	1.60	0.055	0.063
e	0.65	0.65	0.025	0.025
L	0.45	0.55	0.017	0.021
L1	0.55	0.65	0.021	0.025
L2	0.65	0.75	0.025	0.029

**NOTES:**  
 1. Controlling dimensions in millimeters  
 2. Dimension A3 and e are BSC.

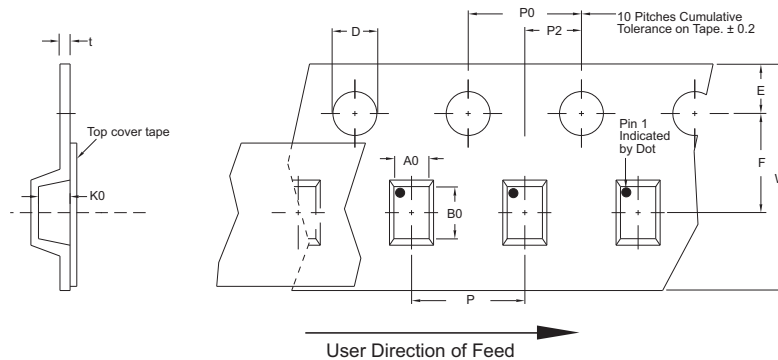
**TAPE & REEL ORDERING NOMENCLATURE**

- Surface mount product is taped and reeled in accordance with EIA 481.
- Suffix-T71 = 7 Inch Reel - 1,000 pieces per 8mm tape, i.e., *DFN6-36-T71*.
- Suffix-T73 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., *DFN6-36-T73*.

**Outline & Dimensions: Rev 0 - 4/08, 0607x**

Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")/330mm(13")	8mm	1.70±0.10	2.2±0.10	0.70 ± 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



**COPYRIGHT © ProTek Devices 2009**

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

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 Devices**  
 2929 South Fair Lane, Tempe, AZ 85282  
 Tel: 602-431-8101 Fax: 602-431-2288  
 E-Mail: [sales@protekdevices.com](mailto:sales@protekdevices.com)  
 Web Site: [www.protekdevices.com](http://www.protekdevices.com)