

**3000 WATT TVS COMPONENT****DESCRIPTION**

The PAM07DF23K24 is high-powered surface mount transient voltage suppression component designed to protect automotive systems from the damaging effects of high voltage spikes. The DFN-2-3KW surface mount package configuration provides a lower profile at a reduce cost. This device provide 3,000 Watts of peak pulse power dissipation for an 10/1000 $\mu$ s waveform.

**FEATURES**

- IEC Compatibility 61000-4-5 (Surge): 48A, 8/20 $\mu$ s - L3(Line-Ground), L4(Line-Line) & L1 (Power)
- 3,000 Watts Peak Pulse Power per Line (tp = 10/1000 $\mu$ s)
- Unidirectional Configuration
- Easy Mounting to Printed Circuit Board
- RoHS Compliant
- REACH Compliant

**APPLICATIONS**

- Automotive Applications

**MECHANICAL CHARACTERISTICS**

- Molded DFN2-3KW
- Approximate Weight: 2.5 grams
- Lead-Free Silver Plating
- Solder Reflow Temperature: 260-270°C
- 12mm Tape and Reel Per EIA Standard 481
- Flammability Rating UL 94V-0

**CIRCUIT DIAGRAM**

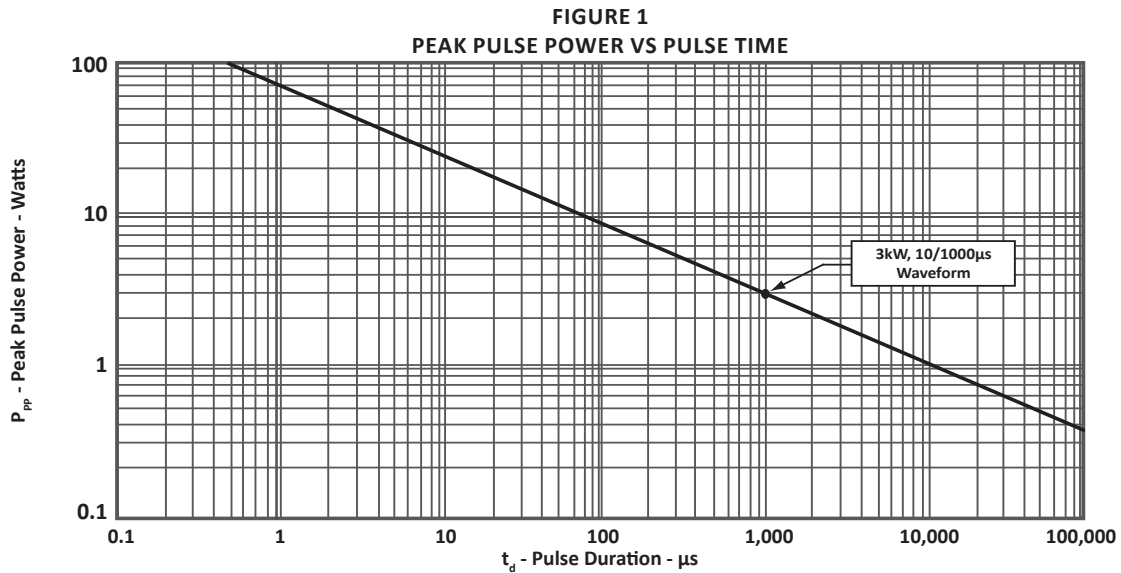
**TYPICAL DEVICE CHARACTERISTICS**
**MAXIMUM RATINGS @ 25°C Unless Otherwise Specified**

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (tp = 10/1000μs) - See Figure 1	$P_{PP}$	3,000	Watts
Storage Temperature	$T_{STG}$	-55 to 150	°C
Operating Temperature	$T_L$	-55 to 150	°C

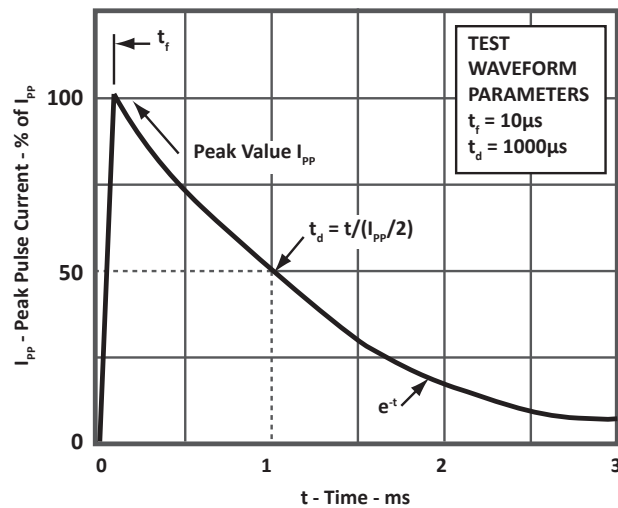
**ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified**

PART NUMBER	MARKING CODE	RATED STAND-OFF VOLTAGE  $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE		MAXIMUM LEAKAGE CURRENT  $@V_{WM}$ $I_D$ μA	MAXIMUM CLAMPING VOLTAGE (Fig. 2)  $@ 10/1000\mu s$ $V_C @ I_{PP}$
			MIN $V_{(BR)}$ VOLTS	$@I_T$ mA		
PAM07DF23K24	3U24	24	26.7	1	3	43.0V @ 69.8A

## TYPICAL DEVICE CHARACTERISTICS



**FIGURE 2**  
**PULSE WAVEFORM**

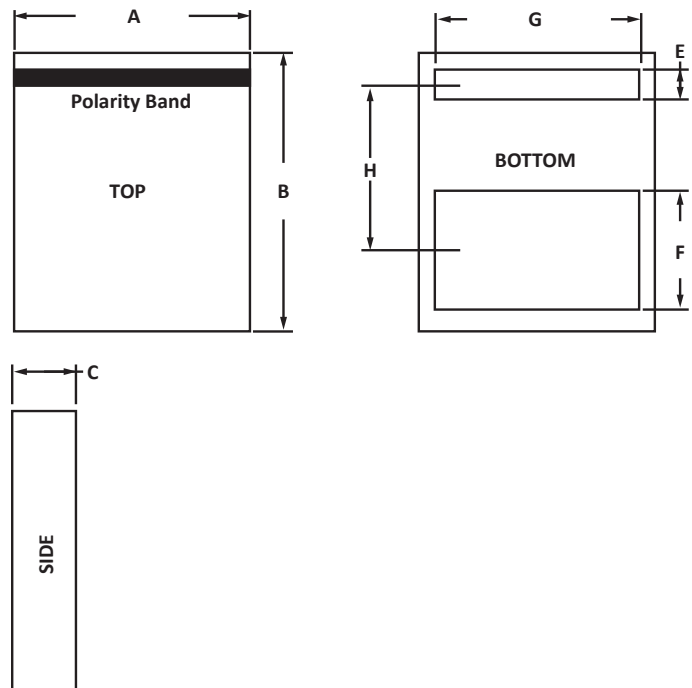


## DFN-2-3KW PACKAGE INFORMATION

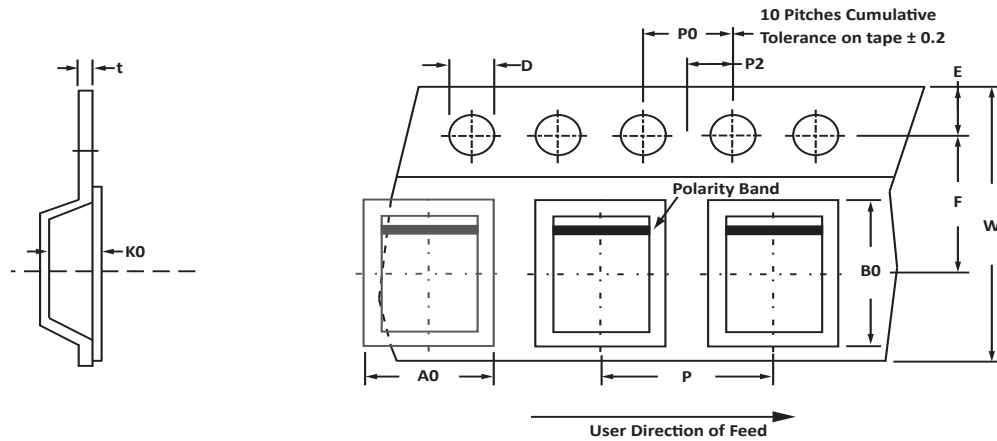
OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	5.44	5.64	0.214	0.222
B	6.45	6.65	0.248	0.262
C	1.16	1.32	0.046	0.052
E	0.66	0.86	0.026	0.034
F	1.93	2.13	0.076	0.084
G	3.91	4.11	0.154	0.162
H	4.27	4.37	0.168	0.172

**NOTES**

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



## TAPE AND REEL



## SPECIFICATIONS

REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
330mm (13")	12mm	5.92 ± 0.10	6.93 ± 0.05	1.65 ± 0.05	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	12.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.10	0.25

## NOTES

- Dimensions are in millimeters.
- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix - T13 = 13" Reel - 2,500 pieces per 12mm tape.
- Marking on Part - marking code (see page 2).

Package outline per document number 06096.R0 10/11.

## ORDERING INFORMATION

BASE PART NUMBER	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
PAM07DF23K24-NQ	n/a	-T13	2,500	13"	n/a

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

Suffix -NQ = This is a commercial grade device and is not qualified to the AEC-Q101 standard. Please contact customer service for more information.

## COMPANY INFORMATION

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### 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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