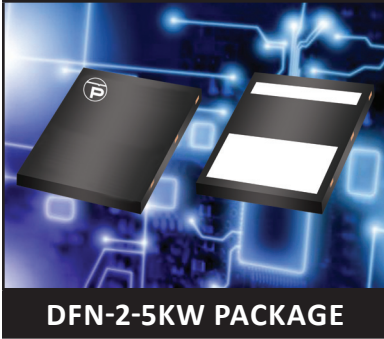


5000 WATT TVS COMPONENT**DESCRIPTION**

The SM5KWxxA Series are high-powered surface mount transient voltage suppression components designed to protect equipment and systems from the damaging effects of high voltage spikes. The DFN-2-5KW surface mount package configuration provides a lower profile at a reduce cost.

These devices provide 5,000 Watts of peak pulse power dissipation for an 10/1000µs waveform. Applications include relay drive protection module and secondary lightning protection.

FEATURES

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

APPLICATIONS

- Relay Drives
- Motor (Start/Stop) Back EMF Protection
- Module Lightning Protection
- Secondary Lightning Protection

MECHANICAL CHARACTERISTICS

- Molded DFN-2-5KW
- Approximate Weight: 2.5 grams
- Lead-Free Silver Plating
- Solder Reflow Temperature: 260-270°C
- Flammability Rating UL 94V-0

APPLICATION

TYPICAL DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 10/1000\mu s$) - See Figure 1	P_{PP}	5,000	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		
SM5KW10A	5U10	10	11.1	5	15	17.0V @ 296.0A
SM5KW33A	5U33	33	36.8	5	8	53.3V @ 94.0A
SM5KW36A	5U36	36	40.2	5	8	58.1V @ 86.0A

TYPICAL DEVICE CHARACTERISTICS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

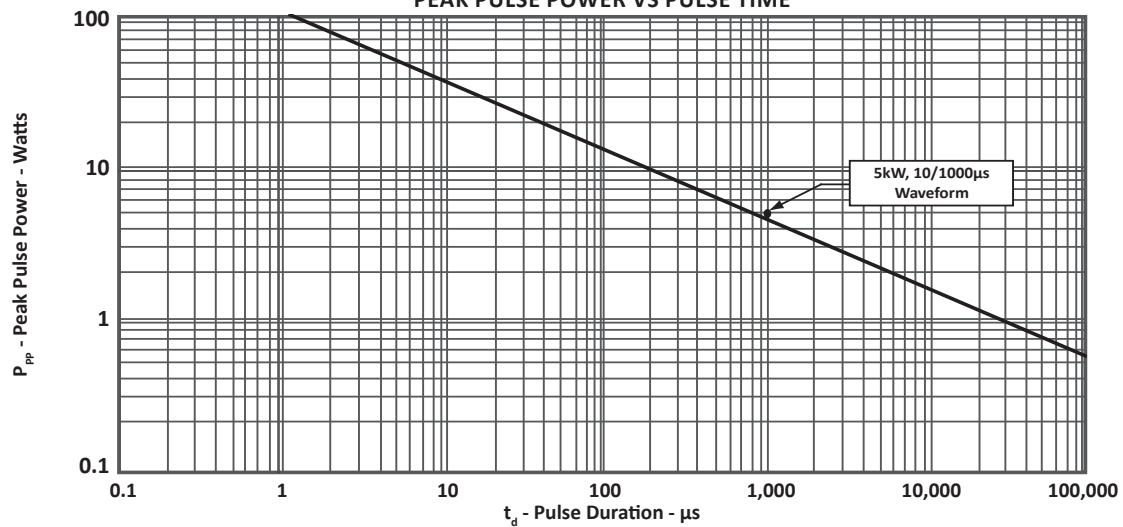
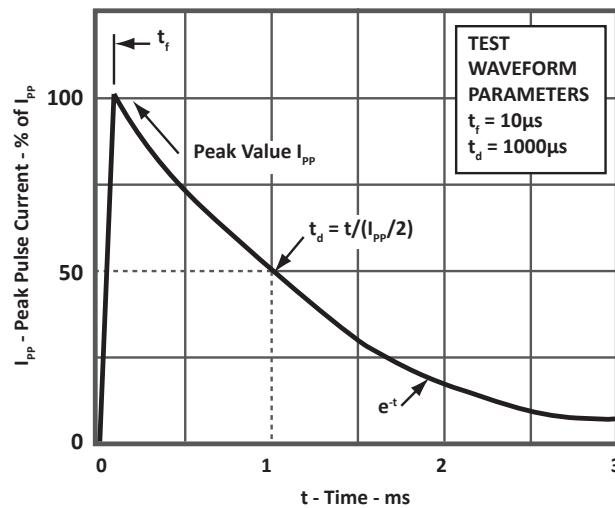


FIGURE 2
PULSE WAVEFORM



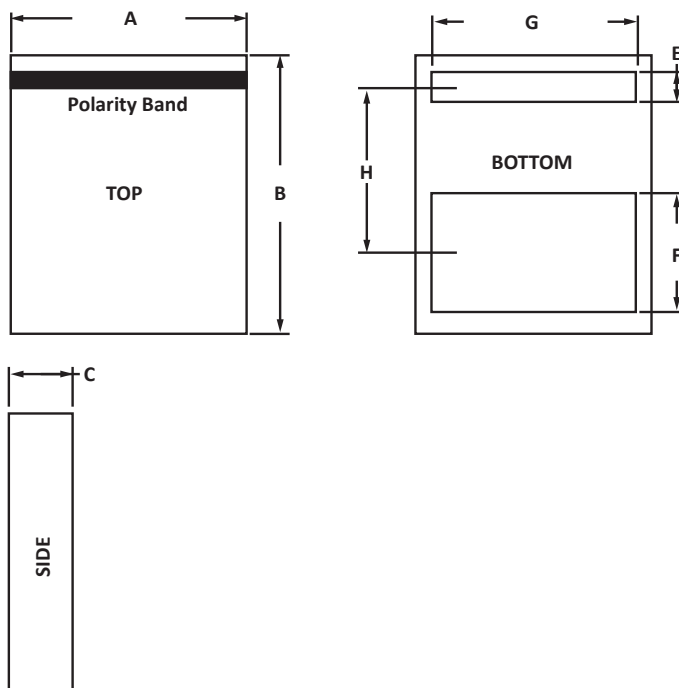
DFN-2-5KW PACKAGE INFORMATION

OUTLINE DIMENSIONS

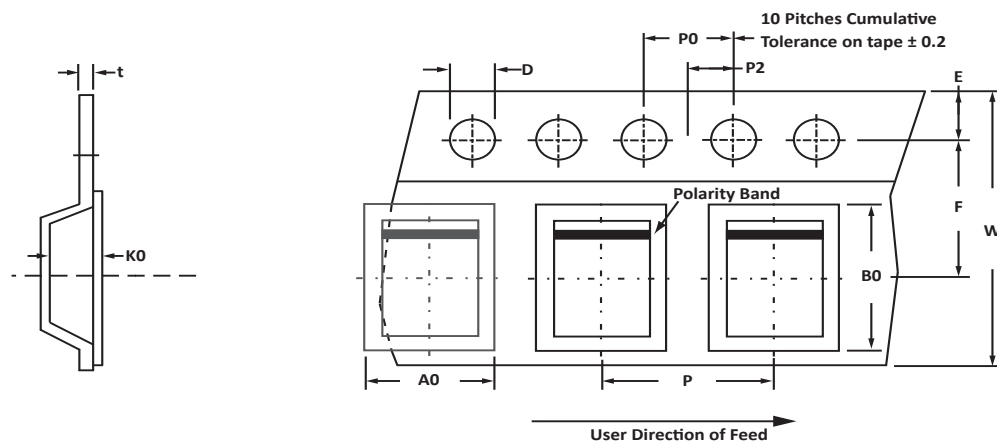
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	6.53	6.68	0.257	0.263
B	7.54	7.70	0.297	0.303
C	1.22	1.33	0.048	0.052
E	0.69	0.84	0.027	0.033
F	3.05	3.30	0.120	0.130
G	5.08	5.33	0.200	0.210
H	4.70	4.88	0.185	0.192

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")	16mm	6.98 ± 0.10	8.00 ± 0.10	1.66 ± 0.10	1.50 ± 0.10	1.75 ± 0.10	3.50±0.05	16.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.10	0.25

NOTES

1. Dimensions are in millimeters.
2. Surface mount product is taped and reeled in accordance with EIA-481.
3. Suffix - T13 = 13" Reel - 2,500 pieces per 16mm tape.
4. Marking on Part - marking code (see page 2), date code, logo and polarity band.

Package outline per document number 06098.R0 10/11.

ORDERING INFORMATION

BASE PART NUMBER (XX=VOLTAGE)	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
SM5KWxxA	n/a	-T13	2,500	13"	n/a

COMPANY INFORMATION

COMPANY PROFILE

ProTek Devices, based in Tempe, Arizona USA, is a manufacturer of Transient Voltage Suppression (TVS) products designed specifically for the protection of electronic systems from the effects of lightning, Electrostatic Discharge (ESD), Nuclear Electromagnetic Pulse (NEMP), inductive switching and EMI/RFI. With over 25 years of engineering and manufacturing experience, ProTek designs TVS devices that provide application specific protection solutions for all electronic equipment/systems.

ProTek Devices Analog Products Division, also manufactures analog interface, control, RF and power management products.

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