

## TYPICAL DEVICE CHARACTERISTICS

## MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	$T_L$	-55 to 150	°C
Storage Temperature	$T_{STG}$	-55 to 150	°C
Peak Pulse Power ( $t_p = 8/20\mu s$ ) - See Figure 1	$P_{PP}$	500	Watts

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

PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE  $V_{WM}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE  @1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (Fig. 2)  @ $I_p = 1A$ $V_c$ VOLTS	MAXIMUM CLAMPING VOLTAGE (Fig. 2)  @ 8/20 $\mu s$ $V_c @ I_{PP}$	MAXIMUM LEAKAGE CURRENT  @ $V_{WM}$ $I_D$ $\mu A$	MAXIMUM CAPACITANCE  @0V, 1MHz C pF
SMDA05CN-5	TEB	5.0	6.0	9.8	19.0V @ 30.0A	10	350
SMDA12CN-5	TED	12.0	13.4	19.0	29.0V @ 20.0A	1	150
SMDA15CN-5	TEF	15.0	16.7	24.0	31.0V @ 18.0A	1	75
SMDA24CN-5	TEH	24.0	26.7	43.0	45.0V @ 13.0A	1	63

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FIGURE 1  
PEAK PULSE POWER VS PULSE TIME

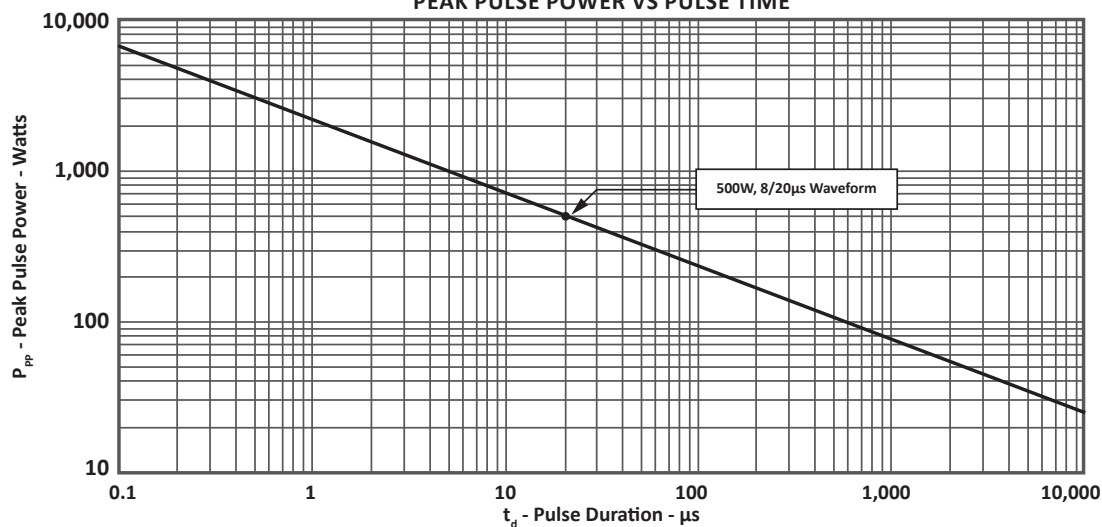


FIGURE 2  
PULSE WAVE FORM

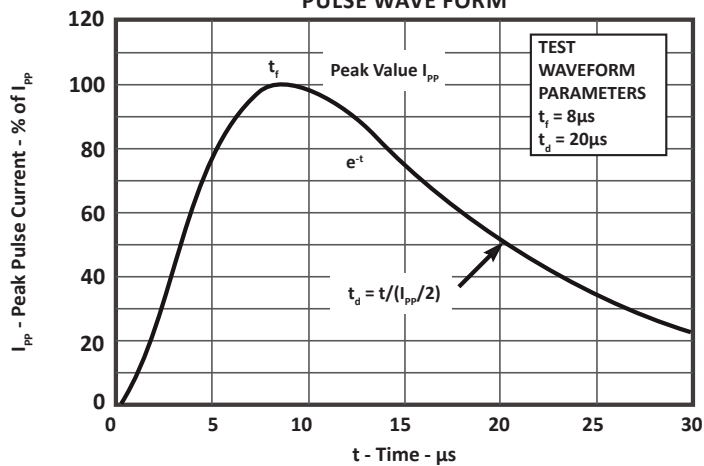
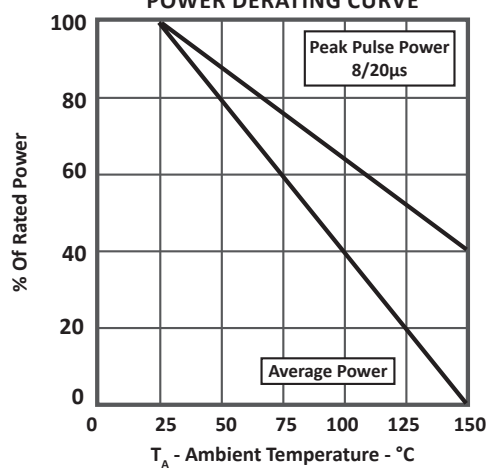


FIGURE 3  
POWER DERATING CURVE

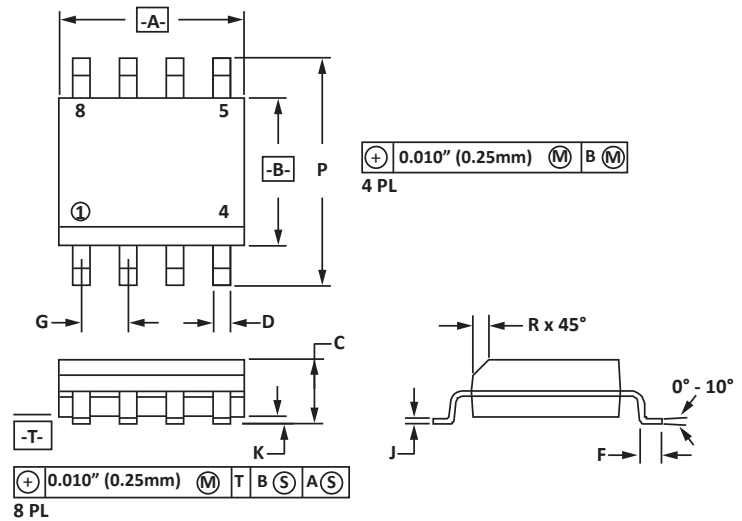


## SO-8 PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.80	5.00	0.189	0.196
B	3.80	4.00	0.150	0.157
C	1.35	1.75	0.054	0.068
D	0.35	0.49	0.014	0.019
F	0.40	1.25	0.016	0.049
G	1.27 BSC		0.05 BSC	
J	0.18	0.25	0.007	0.009
K	0.10	0.25	0.004	0.008
P	5.80	6.20	0.229	0.244
R	0.25	0.50	0.010	0.019

**NOTES**

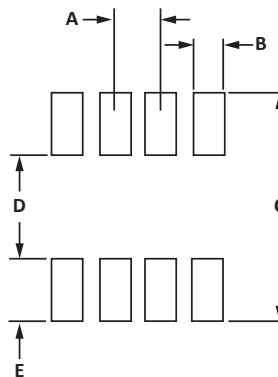
1. -T- = Seating plane and datum surface.
2. Dimensions "A" and "B" are datum.
3. Dimensions "A" and "B" do not include mold protrusion.
4. Maximum mold protrusion is 0.015" (0.380mm) per side.
5. Dimensioning and tolerances per ANSI Y14.5M, 1982.
6. Dimensions are exclusive of mold flash and metal burrs.



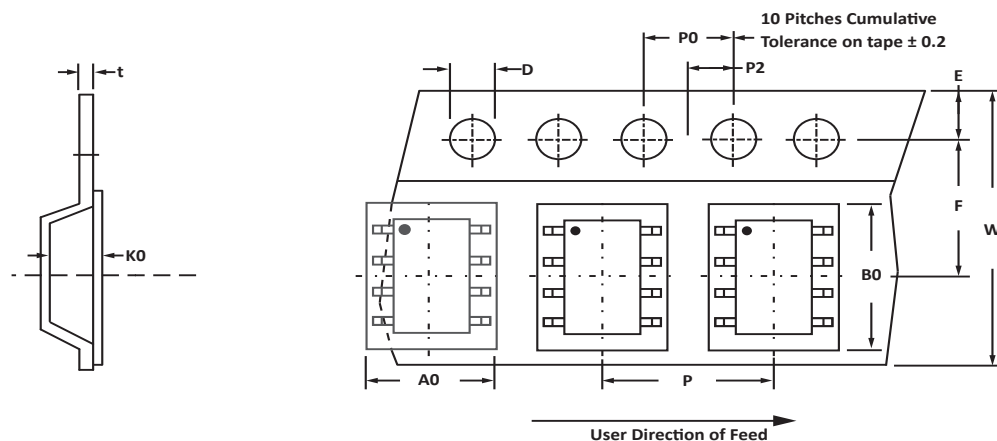
PAD LAYOUT DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.14	1.40	0.045	0.055
B	0.64	0.89	0.025	0.035
C	6.22	-	0.245	-
D	3.94	4.17	0.155	0.165
E	1.02	1.27	0.040	0.050

**NOTES**

1. Controlling dimension: inches.



## TAPE AND REEL



## SPECIFICATIONS

REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	12mm	$6.50 \pm 0.10$	$5.40 \pm 0.10$	$2.00 \pm 0.10$	$1.50 \pm 0.10$	$1.75 \pm 0.10$	$5.50 \pm 0.05$	$12.00 \pm 0.30$	$4.00 \pm 0.12$	$2.00 \pm 0.10$	$8.00 \pm 0.10$	0.25

## NOTES

- Dimensions are in millimeters.
- Surface mount product is taped and reeled in accordance with EIA-481.
- Suffix - T7 = 7" Reel - 1,000 pieces per 12mm tape.
- Suffix - T13 = 13" Reel - 2,500 pieces per 12mm tape.
- Bulk product shipped in tubes of 98 pieces per tube.
- Marking on Part - marking code (see page 2), date code, logo and pin one defined by dot on top of package.

## ORDERING INFORMATION

BASE PART NUMBER (xx = Voltage)	LEADFREE SUFFIX	TAPE SUFFIX	QTY/REEL	REEL SIZE	TUBE QTY
SMDAxxCN-5	-LF	-T7	1,000	7"	98
SMDAxxCN-5	-LF	-T13	2,500	13"	98

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

## COMPANY INFORMATION

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### COMPANY PROFILE

In business more than 25 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection and overcurrent protection components. These include transient voltage suppressor array (TVS arrays) avalanche breakdown diode, steering diode TVS array and electronics SMD chip fuses. These components deliver circuit protection in electronic systems from numerous overvoltage and overcurrent events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices also offers LED wafer die for ESD protection and related high frequency products. ProTek Devices is ISO 9001:2015 certified.

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