

LOW CAPACITANCE TVS ARRAYS

APPLICATIONS

- ✓ T1/E1
- ✓ Cellular Phones
- ✓ Portable Electronics
- ✓ Wireless LANs
- ✓ Video Inputs

IEC COMPATIBILITY (EN61000-4)

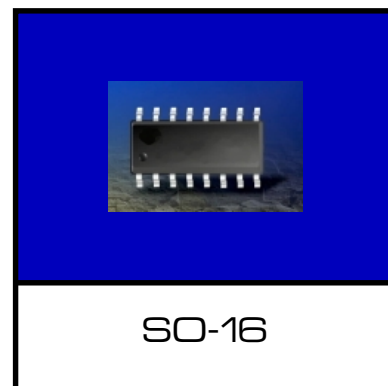
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 8/20 μ s - 95A, L4 Line-Gnd), 48A, L4(Line-Line) & 83A, L2(Power)

FEATURES

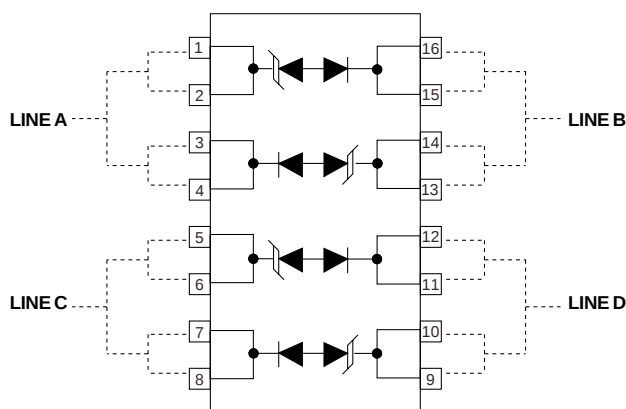
- ✓ 3,600 Watts Peak Pulse Power per Line ($t_p=8/20\mu$ s)
- ✓ 600 Watts Peak Pulse Power per Line ($t_p=10/1000\mu$ s)
- ✓ High Surge Capability: 80A (10/1000 μ s)
- ✓ Protects Two (2) Bidirectional Lines
- ✓ Available in 3 Voltages: 5.0V, 6.5V & 12V
- ✓ **LOW CAPACITANCE: <30pF per LINE PAIR**

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-16 Package
- ✓ Weight 0.15 grams (Approximate)
- ✓ Flammability rating UL 94V-0
- ✓ 16mm Tape and Reel Per EIA Standard 481-1-A
- ✓ Marking: Logo, Part Number & Pin One Defined By Dot on Top of Package



CIRCUIT DIAGRAMS



SMP6LC05-2P thru SMP6LC12-2P

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	3,600	Watts
Peak Pulse Power ($t_p = 10/1000\mu s$) - See Figure 1	P_{PP}	600	Watts
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified					
PART NUMBER (Note 1)	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_{PP} = 10A$ V_C VOLTS	TYPICAL CAPACITANCE @0V, 1MHz C pF
SMP6LC05-2P	6.0	6.0	300	9.6	15
SMP6LC6.5-2P	6.5	7.2	300	12.4	15
SMP6LC12-2P	12.0	13.3	2.0	19.9	15

Note 1: Do no surge from pins 15/16 to 1/2, 3/4 to 13/14, 11/12 to 5/6 and 7/8 to 9/10. PIV typically greater than 100 Volts for each rectifier diode.

SMP6LC05-2P thru SMP6LC12-2P

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

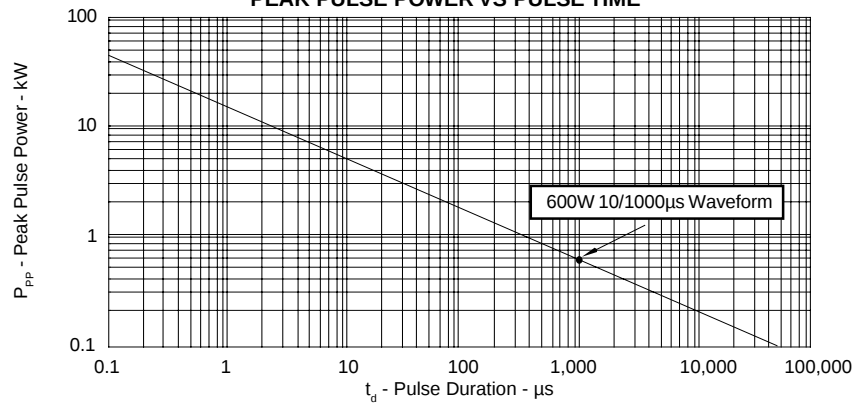


FIGURE 2
PULSE WAVE FORM

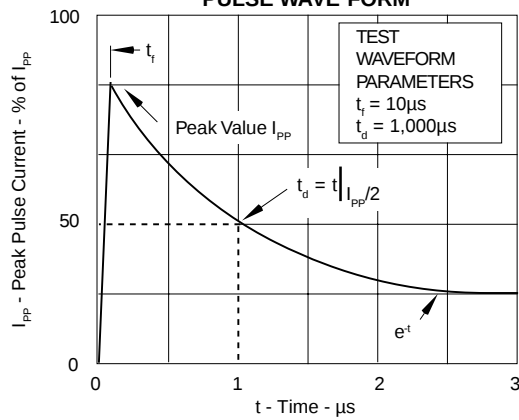
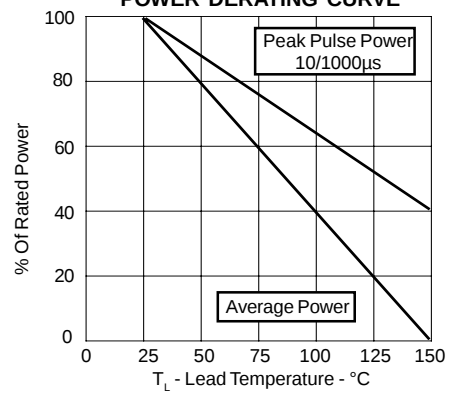


FIGURE 3
POWER DERATING CURVE

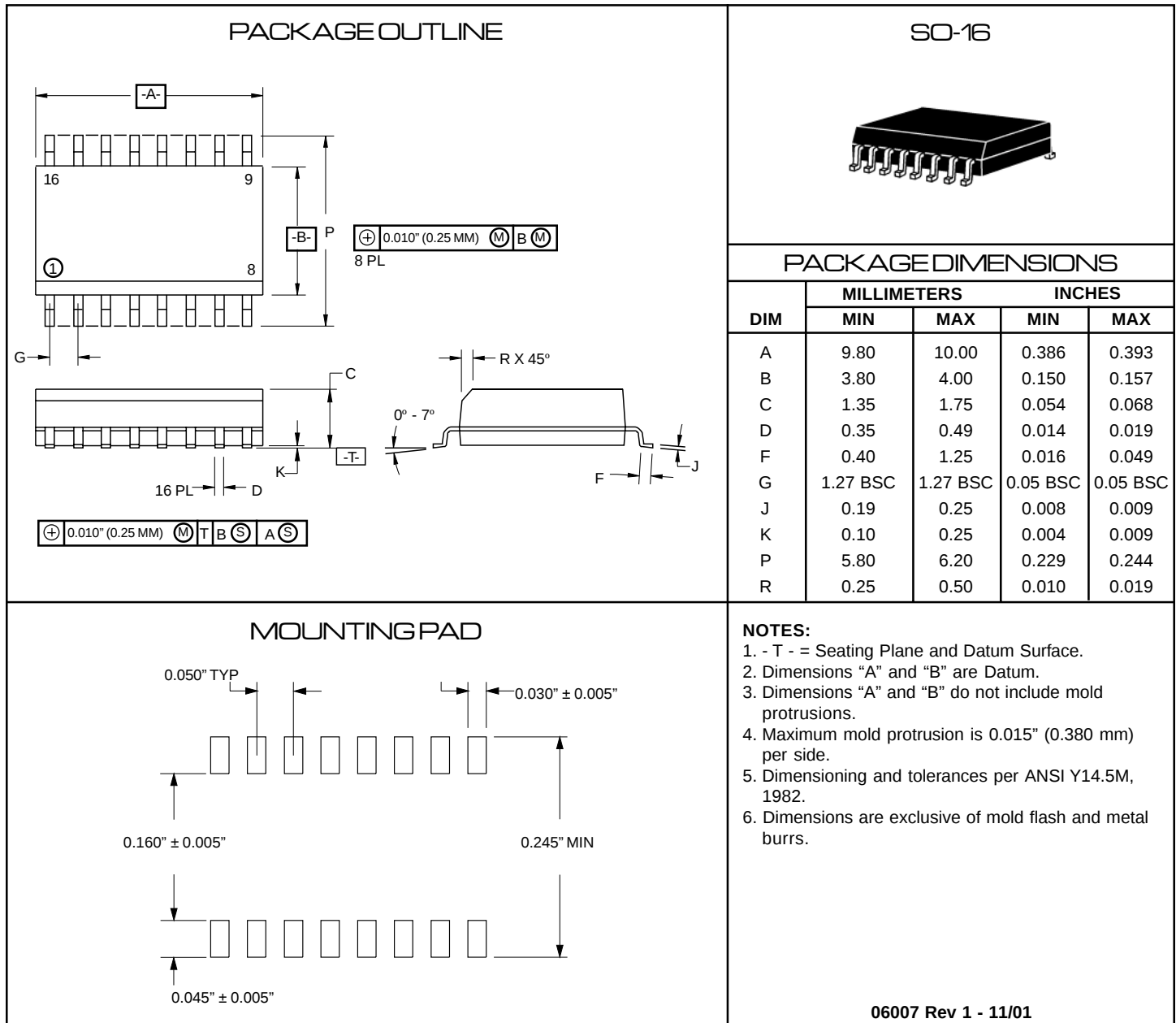


SMP6LC05-2P

thru

SMP6LC12-2P

PACKAGE OUTLINE & DIMENSIONS



TAPE & REEL PACKAGING:

Surface mount product is taped and reeled in accordance with EIA-481, reel quantities and sizes are as follows:

7 Inch Reel - 1,000 pieces per reel; 13 Inch Reel - 2,500 pieces per reel

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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.

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