

LOW CAPACITANCE TVS ARRAY
APPLICATIONS

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

IEC COMPATIBILITY (EN61000-4)

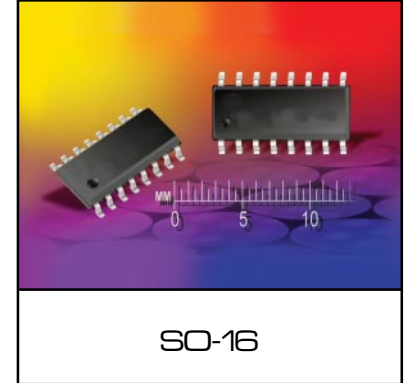
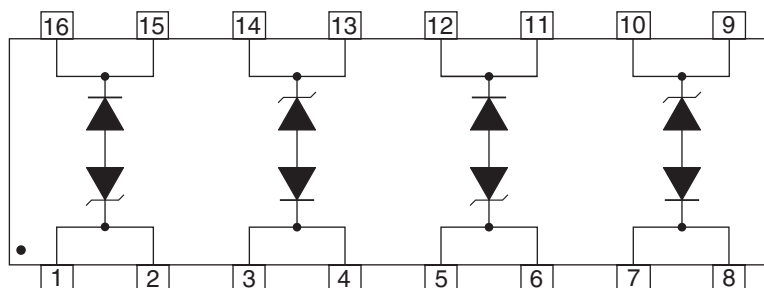
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 8/20 μ s - 95A, L4(Line-Gnd) & 48A, L4(Line-Line) & 83A, L2(Power)

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)
- ✓ Bidirectional Configuration
- ✓ High Surge Capability: 80A (10/1000 μ s)
- ✓ Available in Multiple Voltages
- ✓ Protects Two (2) Bidirectional Lines
- ✓ **LOW CAPACITANCE: < 30pF per LINE PAIR**
- ✓ RoHS Compliant in Lead-Free Versions

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-16 Package
- ✓ Weight 0.15 grams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:
 - Tin-Lead - Sn/Pb, 85/15: 240-245°C
 - Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability rating UL 94V-0
- ✓ 16mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Logo, Part Number, Date Code & Pin One Defined By Dot on Top of Package


PIN CONFIGURATION


DEVICE CHARACTERISTICS

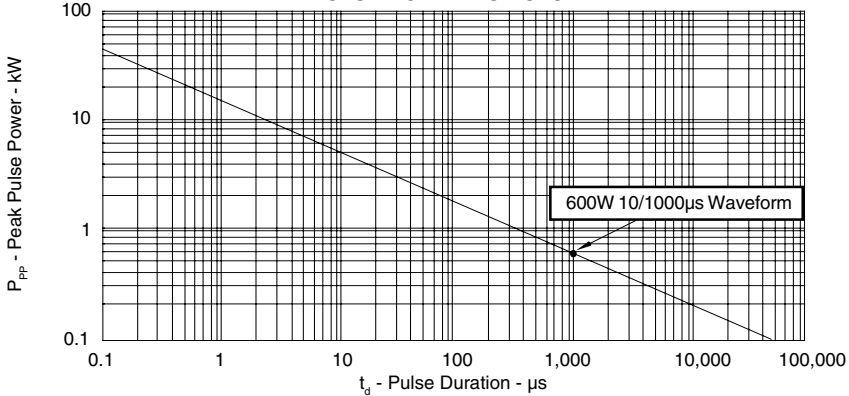
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	3,600	Watts
Peak Pulse Power ($t_p = 10/1000\mu s$) - See Figure 1	P_{PP}	600	Watts
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C

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	5.0	6.0	300	9.6	15
SMP6LC6.5-2P	6.5	7.2	300	12.4	15
SMP6LC08-2P	8.0	8.5	25	13.6	15
SMP6LC12-2P	12.0	13.3	2	19.9	15
SMP6LC15-2P	15.0	16.7	2	24.4	15
SMP6LC24-2P	24.0	26.7	2	38.9	15

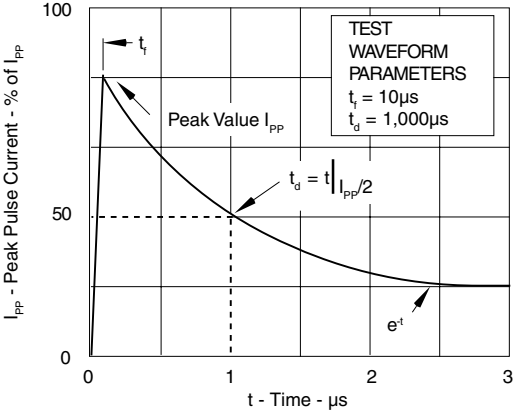
Note 1: Do no surge from pins 15/16 to 1/2, 3/4 to 13/14, 11/12 to 5/6 and 7/8 to 9/10. PIV typically greater than 100 Volts for each rectifier diode.

GRAPHS

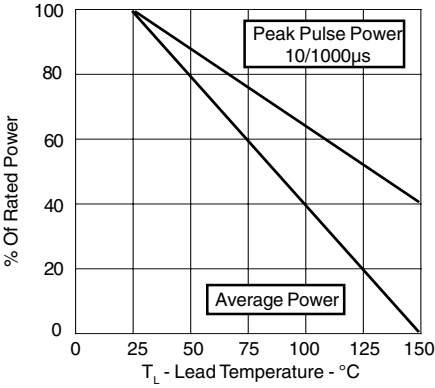
**FIGURE 1
 PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2
 PULSE WAVE FORM**

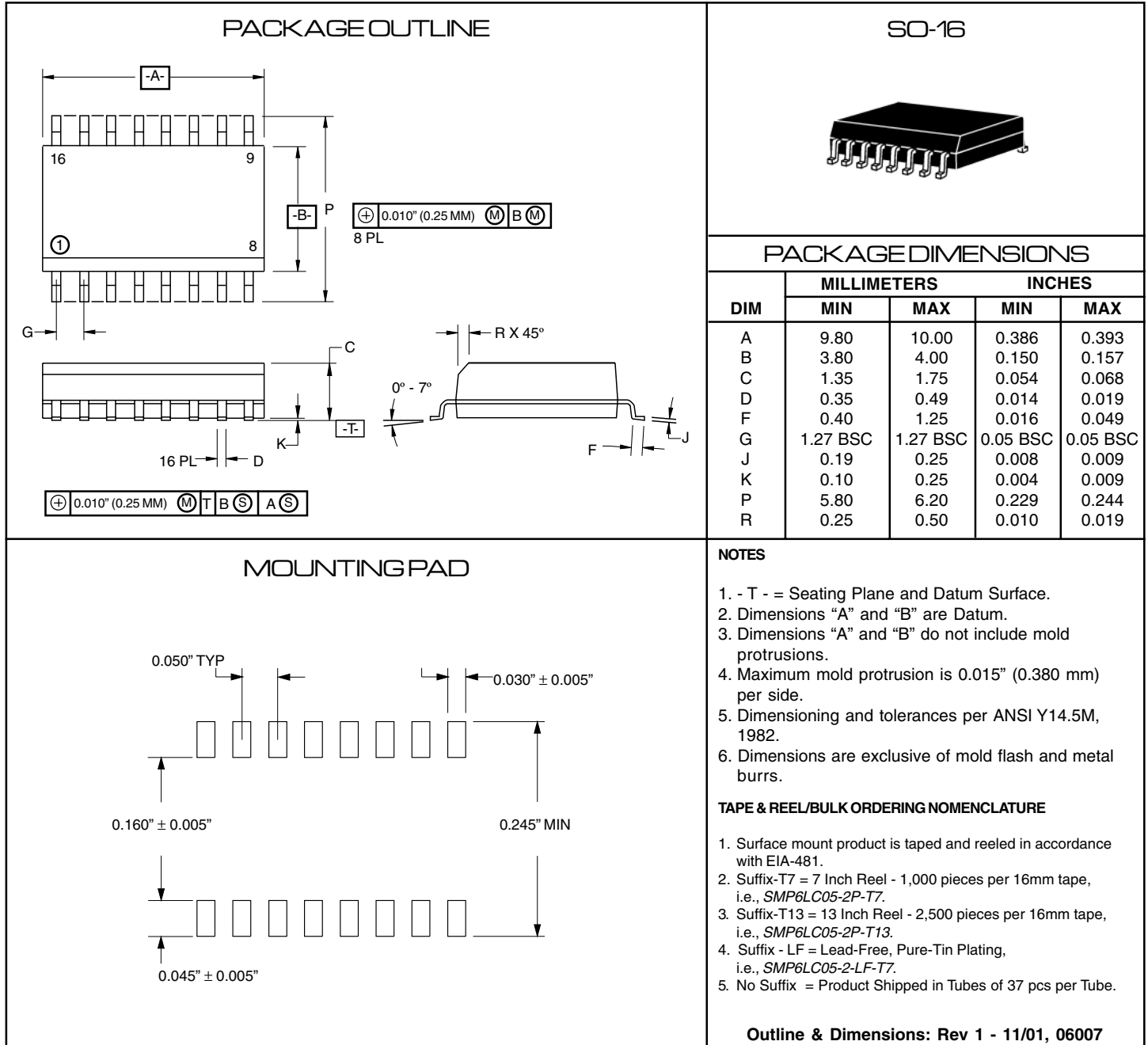


**FIGURE 3
 POWER DERATING CURVE**



SMP6LC05-2P thru SMP6LC24-2P

PACKAGE OUTLINE & DIMENSIONS



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