

APPLICATIONS

- ✓ T1/E1
- ✓ Customer Premise Equipment (CPE)
- ✓ Telecommunication Equipment: Base Stations, WAN, Routers, Multiplexers
- ✓ Wireless LANs

IEC COMPATIBILITY (EN61000-4)

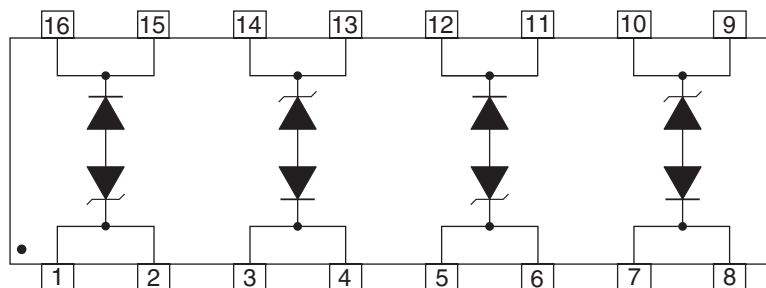
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 8/20 μ s - 100A

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)
- ✓ 100A (2/10 μ s) per Bellcore GR-1089 (Intra-Building)
- ✓ ITKU.20 I_{pp} @ 100A (5/310 μ s)
- ✓ Bidirectional Configuration
- ✓ High Surge Capability
- ✓ Available in Multiple Voltages
- ✓ Protects Two (2) Bidirectional Lines
- ✓ Low Capacitance: < 30pF per Line Pair
- ✓ RoHS Compliant

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-16 Package
- ✓ Weight 0.15 grams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating (Annealed)
- ✓ Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
- ✓ Consult Factory for Leaded Device Availability
- ✓ 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


SMP6LC05-2P thru SMP6LC24-2P

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	3600	Watts
Peak Pulse Power ($t_p = 10/1000\mu\text{s}$) - See Figure 1	P_{PP}	600	Watts
Operating Temperature	T_L	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C
Peak Pulse Current ($t_p = 8/20\mu\text{s}$) - See Figure 1	I_{PP}	100	Amps

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER (See 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) @ $I_{PP} = 10\text{A}$ 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

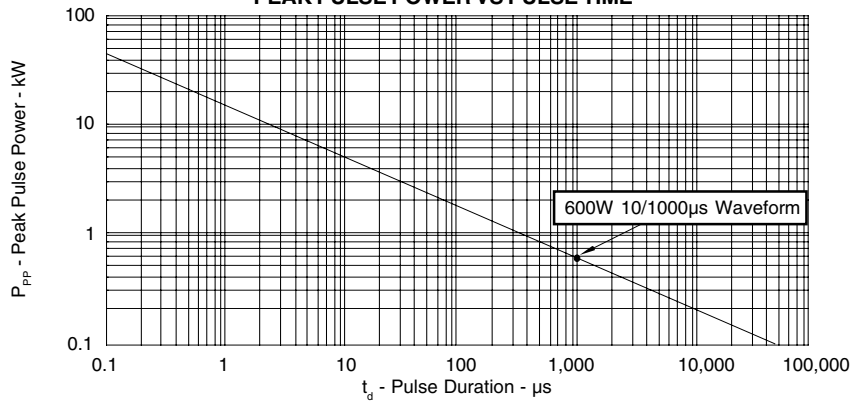


FIGURE 2
 PULSE WAVE FORM

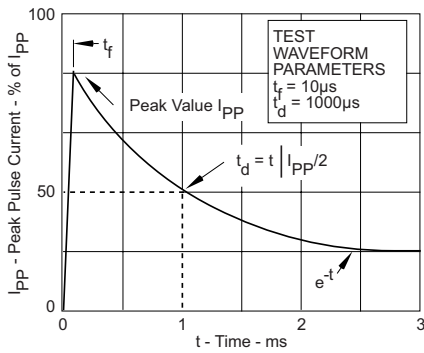
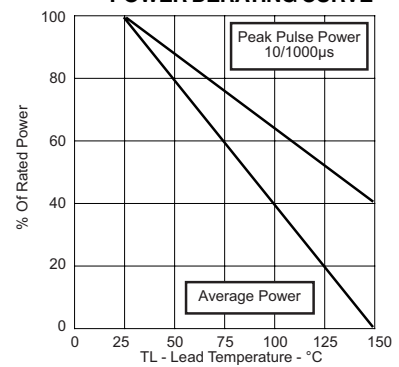
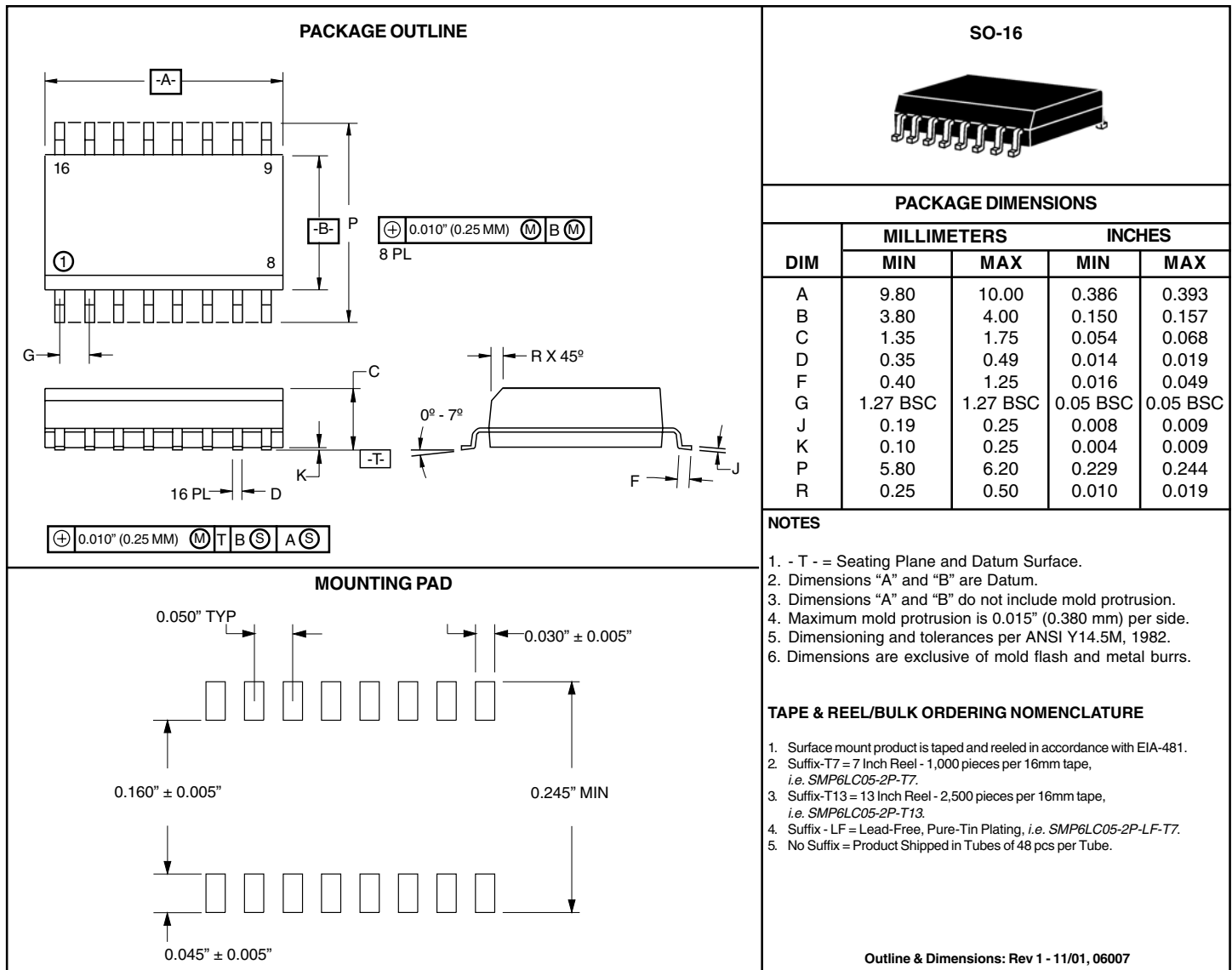


FIGURE 3
 POWER DERATING CURVE



SMP6LC05-2P thru SMP6LC24-2P

SO-16 PACKAGE OUTLINE & DIMENSIONS



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ProTek Devices
 2929 South Fair Lane, Tempe, AZ 85282
 Tel: 602-431-8101 Fax: 602-431-2288
 E-Mail: sales@protekdevices.com
 Web Site: www.protekdevices.com