

APPLICATIONS

- ✓ RS-232, RS-422 & RS-423 Data Lines
- ✓ Microprocessor Based Equipment
- ✓ Control & Monitoring Equipment
- ✓ Portable Electronics

IEC COMPATIBILITY (EN61000-4)

- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 12A, 8/20 μ s - Level 1(Line-Gnd) & Level 2(Line-Line)

FEATURES

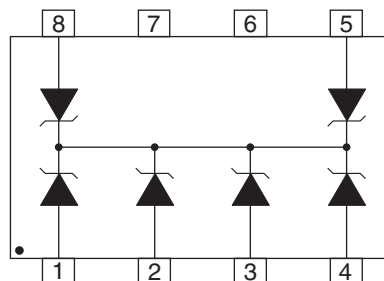
- ✓ 500 Watts Peak Pulse Power per Line (tp=8/20 μ s)
- ✓ Bidirectional Configuration
- ✓ Monolithic Design
- ✓ Available in Multiple Voltage Types Ranging From 5V to 24V
- ✓ Protects 5 Lines
- ✓ ESD Protection > 40 kilovolts
- ✓ RoHS Compliant

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-8
- ✓ Weight 70 milligrams (Approximate)
- ✓ Available in Lead-Free Pure-Tin Plating(Annealed)
- ✓ Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
- ✓ Flammability Rating UL 94V-0
- ✓ 12mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Marking Code, Logo, Date Code & Pin One Defined By Dot on Top of Package


SO-8

PIN CONFIGURATION



SMDA05CN-5 thru SMDA24CN-5

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

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

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 (See Fig. 2) @ $I_p = 1A$ V_C VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 8/20 μs $V_C @ I_{PP}$	MAXIMUM LEAKAGE CURRENT @ V_{WM} I_b μA	MAXIMUM CAPACITANCE (See Note 2) @ 0V, 1 MHz C pF
SMDA05CN-5	TEB	5.0	6.0	9.8	19.0V @ 30A	10	350
SMDA12CN-5	TED	12.0	13.4	19.0	29.0V @ 20A	1	150
SMDA15CN-5	TEF	15.0	16.7	24.0	31.0V @ 18A	1	75
SMDA24CN-5	TEH	24.0	26.7	43.0	45.0V @ 13A	1	63

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

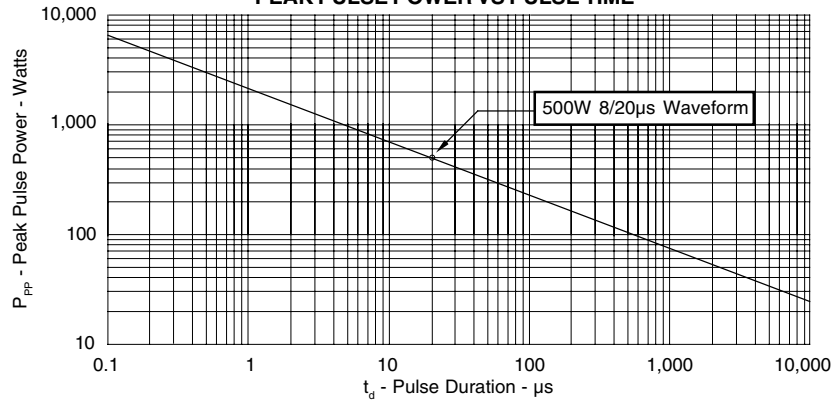


FIGURE 2
PULSE WAVE FORM

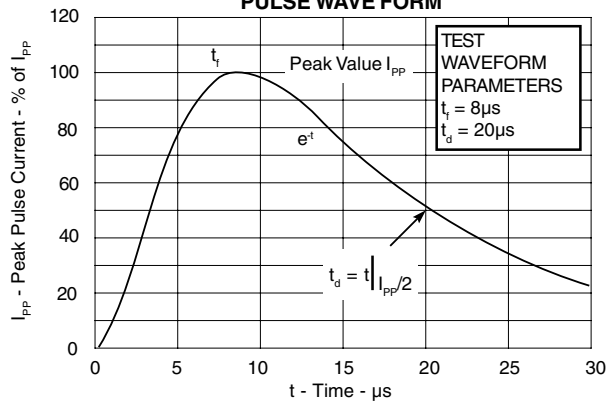
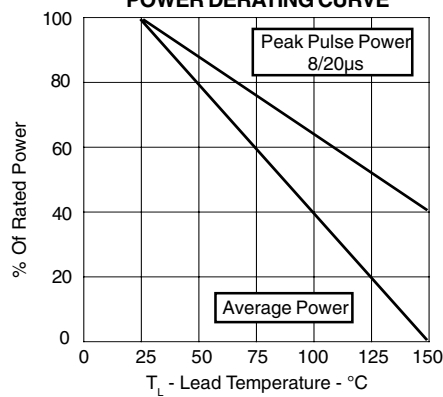
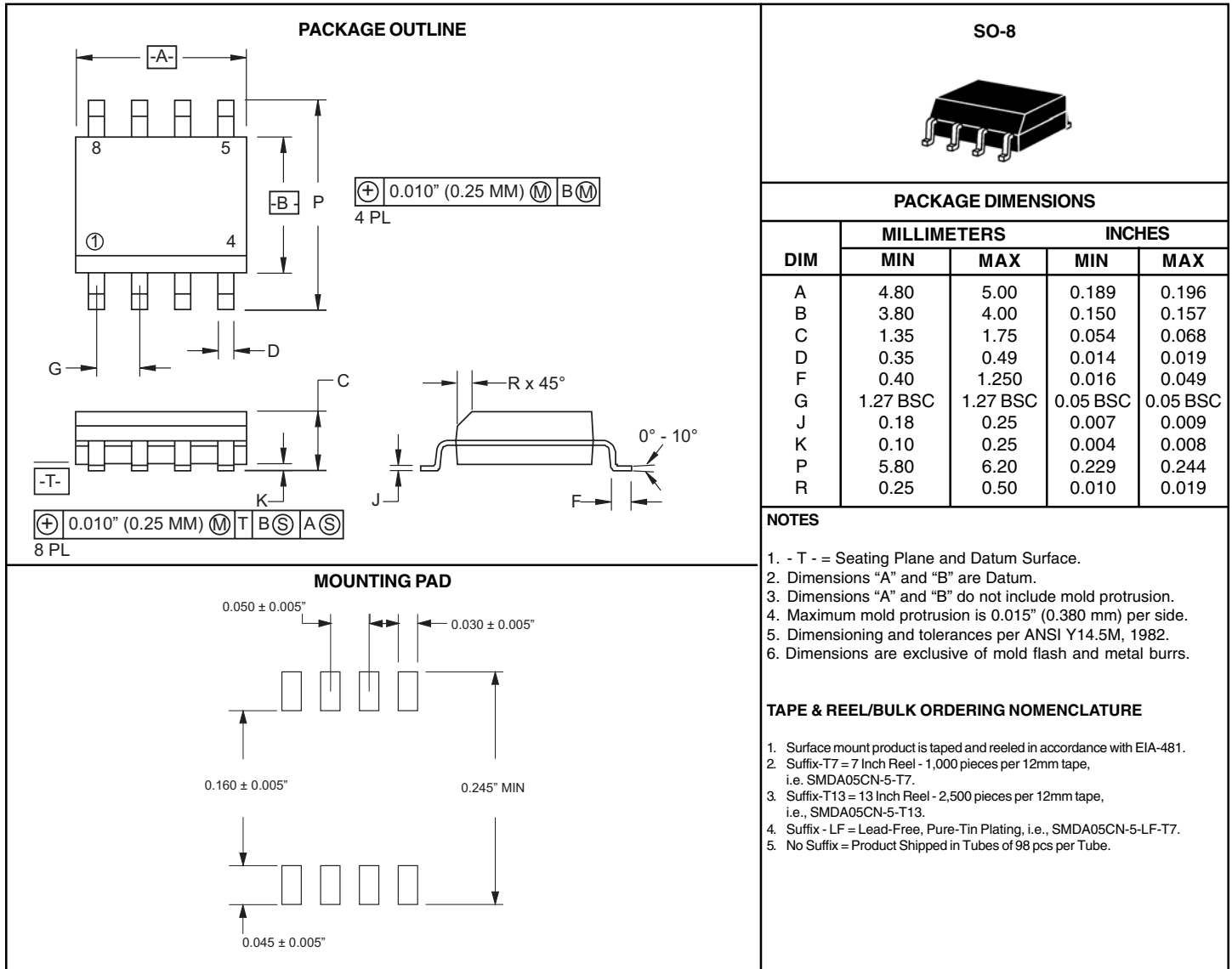


FIGURE 3
POWER DERATING CURVE



SMDA05CN-5 thru SMDA24CN-5

SO-8 PACKAGE OUTLINE & DIMENSIONS



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