

## APPLICATIONS

- ✓ USB Power & Data Line Protection
- ✓ RS-422 & RS-485 Network Protection
- ✓ Computer I/O Ports
- ✓ Audio/Video Inputs
- ✓ Microcontroller Interface Protection

## IEC COMPATIBILITY (EN61000-4)

- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 $\mu$ s - Level 2(Line-Gnd) & Level 3(Line-Line)

## FEATURES

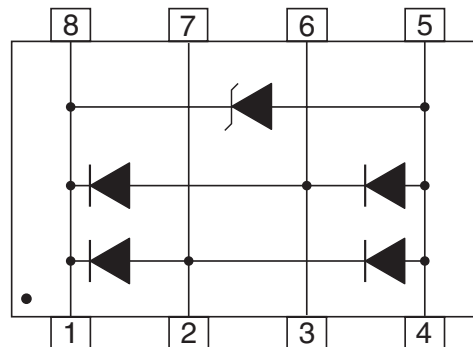
- ✓ 500 Watts Peak Pulse Power per Line (tp=8/20 $\mu$ s)
- ✓ ESD Protection > 40 kilovolts
- ✓ Protects Two (2) I/O Ports and Bus Lines
- ✓ Available in 2 Voltage Types 3.3V & 5V
- ✓ Low Capacitance: 15pF
- ✓ RoHS Compliant

## 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
- ✓ Consult Factory for Leaded Device Availability
- ✓ 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



# PUSB3B thru PUSB6B

## 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

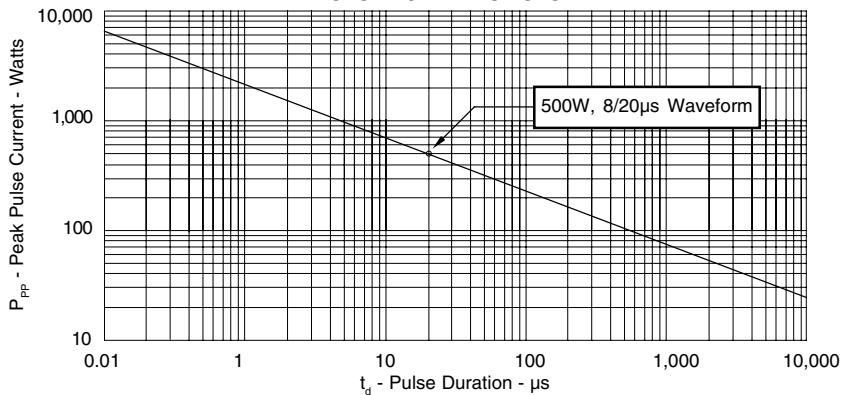
### ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified

PART NUMBER (See Note 1)	DEVICE MARKING CODE	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 $\mu s$ $V_C @ I_{PP}$	MAXIMUM LEAKAGE CURRENT  @ $V_{WM}$ $I_D$ $\mu A$	MAXIMUM CAPACITANCE  @ 0V, 1 MHz $C_{i(SD)}$ pF
PUSB3B	PRQ	3.3	4.0	6.0	12.9V @ 37A	125	15
PUSB6B	PRR	5.25	6.0	7.0	13.2V @ 35A	10	15

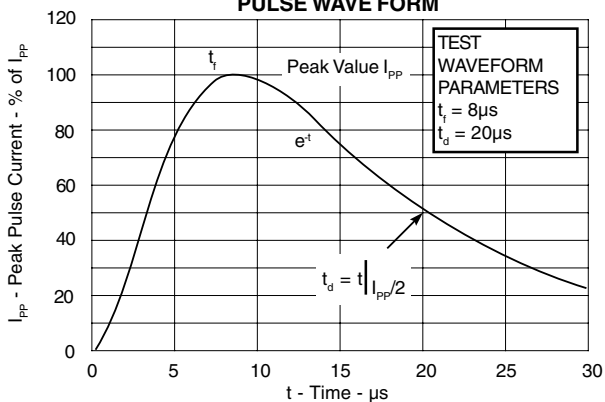
**Note 1:** Electrical specifications refer to pins 1 to pin 4 or pin 5 to pin 8.

GRAPHS

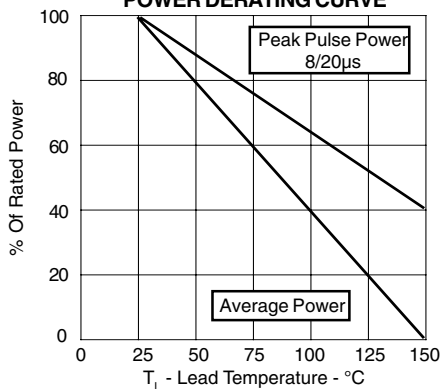
**FIGURE 1  
 PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2  
 PULSE WAVE FORM**

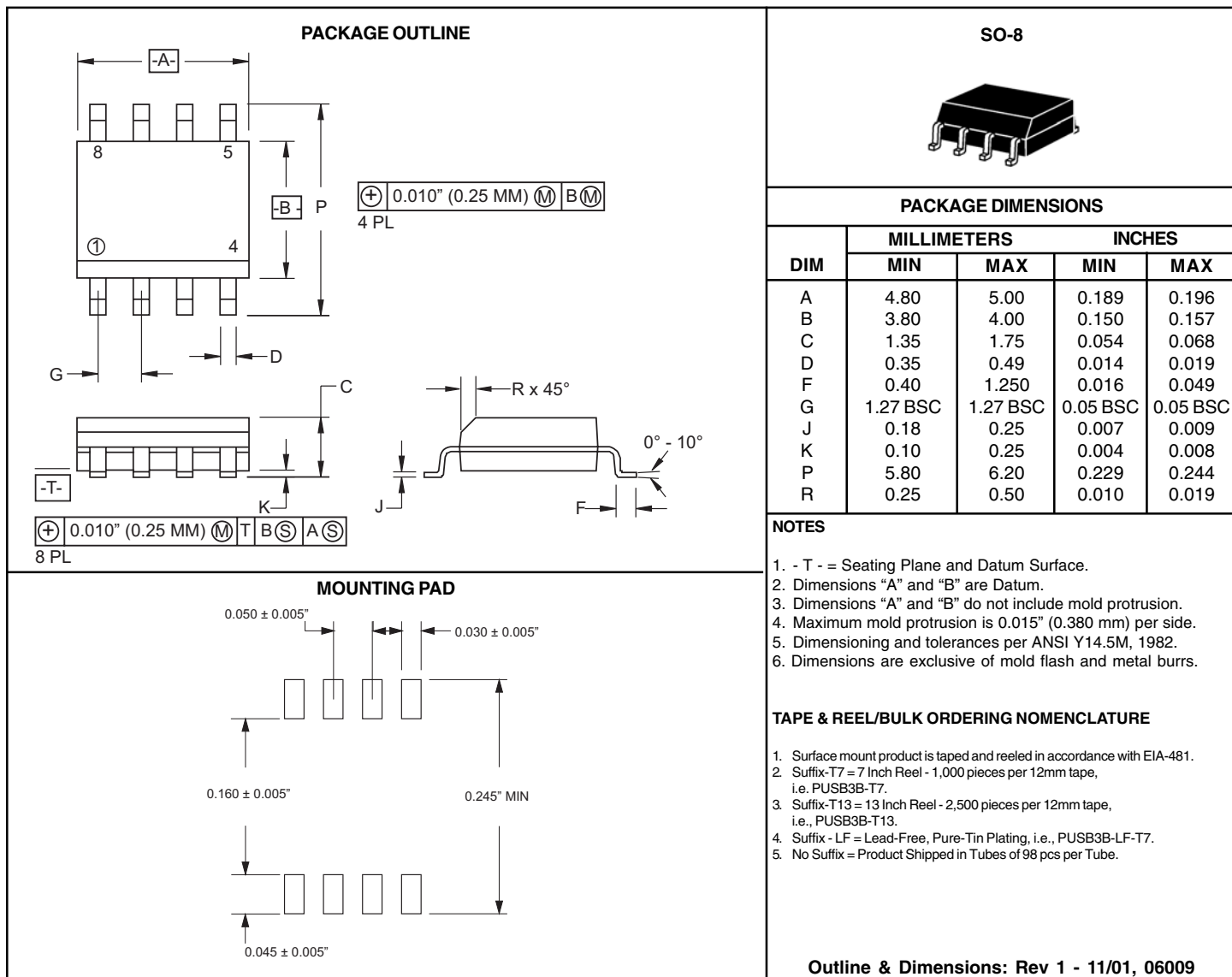


**FIGURE 3  
 POWER DERATING CURVE**



# PUSB3B thru PUSB6B

## SO-8 PACKAGE OUTLINE & DIMENSIONS



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