

STANDARD CAPACITANCE TVS ARRAY

APPLICATIONS

- ✓ Multiple I/O Port Protection
- ✓ Board Level Interface Connection
- ✓ RS-232, RS-422 & RS-423 Data Lines
- ✓ 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): 24A, 8/20 μ s - Level 2(Line-Gnd) & Level 3(Line-Line)

FEATURES

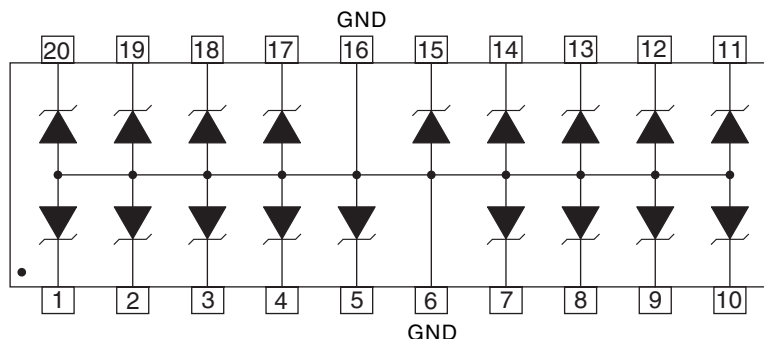
- ✓ 200 Watts Peak Pulse Power per Line (tp=8/20 μ s)
- ✓ ESD Protection > 25 kilovolts
- ✓ Unidirectional Configuration
- ✓ Monolithic Design
- ✓ Protection 18 I/O Lines
- ✓ RoHS Compliant in Lead-Free Versions

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SO-20WB (Wide Body) Package
- ✓ Weight 0.5 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
- ✓ 24mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Logo, Marking Code, Date Code & Pin One Defined By Dot on Top of Package



PIN CONFIGURATION



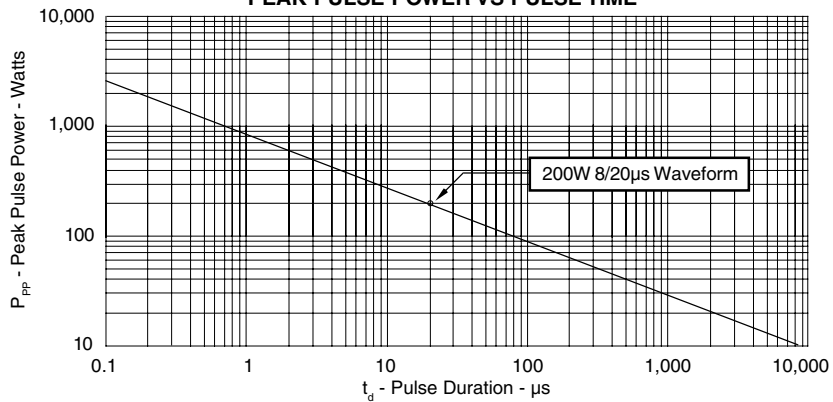
DEVICE CHARACTERISTICS

| MAXIMUM RATINGS @ 25°C Unless Otherwise Specified | | | |
|---|-----------|----------------|-------|
| PARAMETER | SYMBOL | VALUE | UNITS |
| Peak Pulse Power ($t_p = 8/20\mu s$) - See Figure 1 | P_{PP} | 200 | Watts |
| Operating Temperature | T_J | -55°C to 150°C | °C |
| Storage Temperature | T_{STG} | -55°C to 150°C | °C |

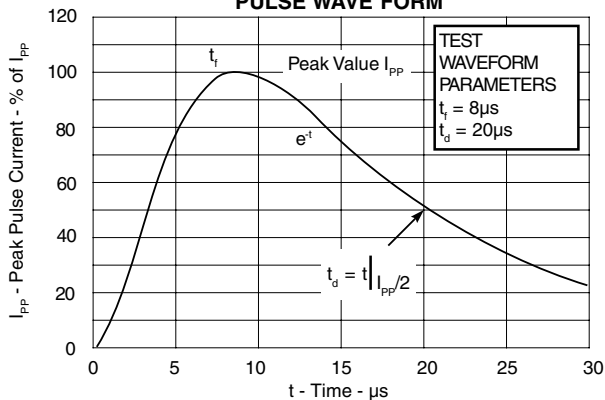
| ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified | | | | | | | | |
|---|---------------------|--|---|---|---|---|---|--|
| PART NUMBER | DEVICE MARKING CODE | RATED STAND-OFF VOLTAGE V_{WM} VOLTS | MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS | MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ $I_p = 1A$ V_C VOLTS | MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ 8/20 μs $V_C @ I_{PP}$ | MAXIMUM LEAKAGE CURRENT @ V_{WM} I_D μA | MAXIMUM FORWARD VOLTAGE @ 200 mA V_F VOLTS | MAXIMUM CAPACITANCE (PER LINE) @ 0V, 1 MHz C pF |
| SM20M05-18 | VEB | 5.0 | 6.0 | 9.8 | 12.0V @ 16.0A | 20 | 1.25 | 120 |

GRAPHS

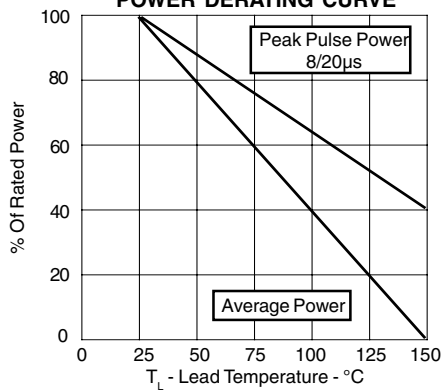
**FIGURE 1
PEAK PULSE POWER VS PULSE TIME**



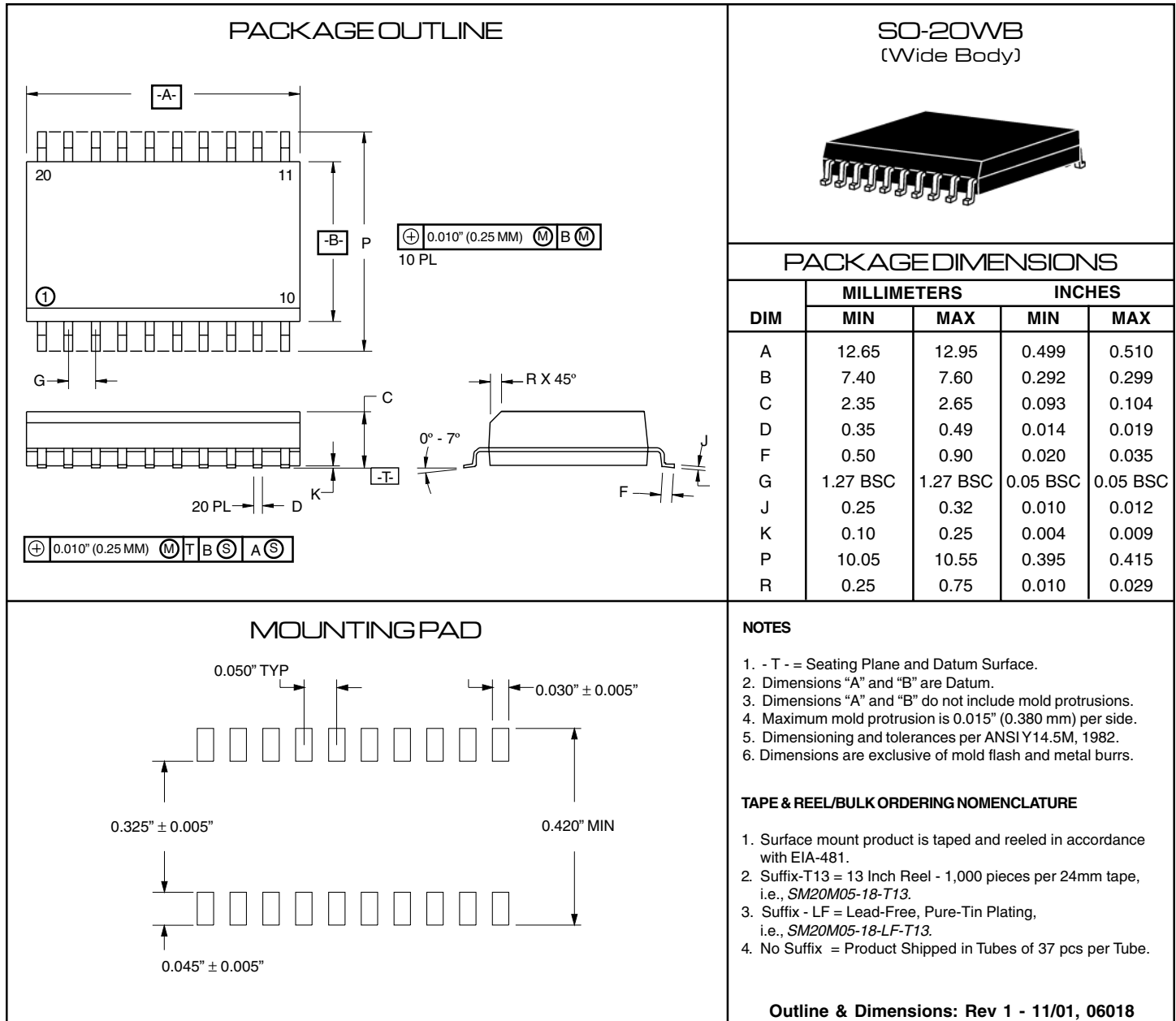
**FIGURE 2
PULSE WAVE FORM**



**FIGURE 3
POWER DERATING CURVE**



PACKAGE OUTLINE & DIMENSIONS



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