

**FLIP CHIP ARRAY****APPLICATIONS**

- ✓ Cellular Phones
- ✓ Personal Digital Assistant (PDA)
- ✓ Ground Positioning System (GPS)
- ✓ SMART & PCMCIA Cards

**IEC COMPATIBILITY (EN61000-4)**

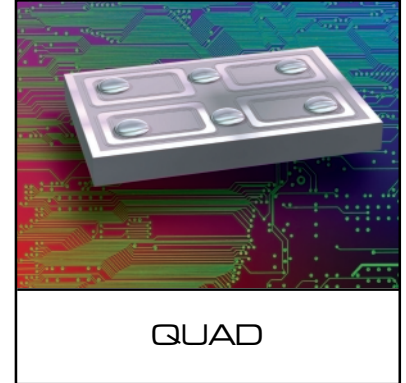
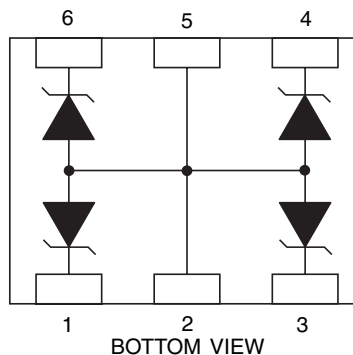
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20μs - Level 2(Line-Gnd) & Level 3(Line-Line)

**FEATURES**

- ✓ ESD Protection > 25 kilovolts
- ✓ 300 Watts Peak Pulse Power per Line (tp = 8/20μs)
- ✓ Protects up to Four (4) Unidirectional Lines

**MECHANICAL CHARACTERISTICS**

- ✓ Weight 0.73 milligrams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Plastic & Paper Tape and Reel Per EIA Standard 481
- ✓ Device Marking On Reel
- ✓ Top Contacts: Solder Bump 0.004" in Height (Nominal)

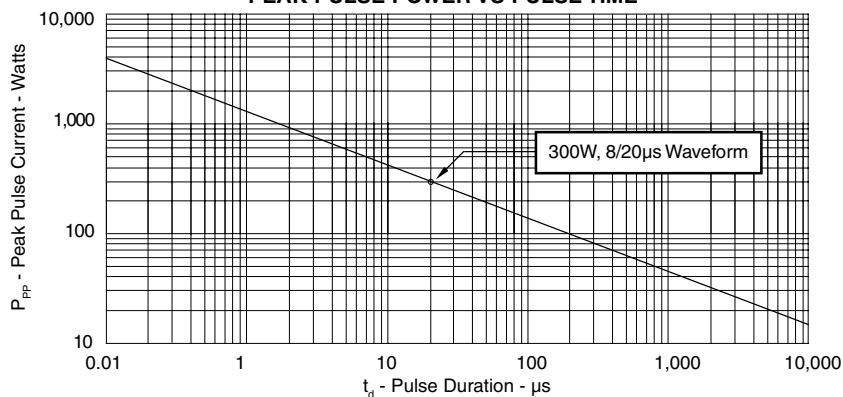
**PIN CONFIGURATION**

## DEVICE CHARACTERISTICS

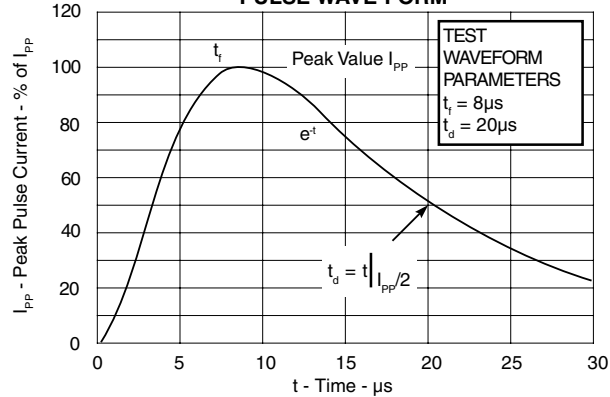
| MAXIMUM RATINGS @ 25°C Unless Otherwise Specified     |           |                |       |
|-------------------------------------------------------|-----------|----------------|-------|
| PARAMETER                                             | SYMBOL    | VALUE          | UNITS |
| Peak Pulse Power ( $t_p = 8/20\mu s$ ) - See Figure 1 | $P_{PP}$  | 300            | 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                                                           | RATED STAND-OFF VOLTAGE | MINIMUM BREAKDOWN VOLTAGE    | MAXIMUM CLAMPING VOLTAGE (See Fig. 2) | MAXIMUM CLAMPING VOLTAGE (See Fig. 2) | MAXIMUM LEAKAGE CURRENT        | TYPICAL CAPACITANCE        |
|                                                                       | $V_{WM}$<br>VOLTS       | @ 1mA<br>$V_{(BR)}$<br>VOLTS | @ $I_P = 5A$<br>$V_C$<br>VOLTS        | @ 8/20 $\mu s$<br>$V_C$ @ $I_{PP}$    | @ $V_{WM}$<br>$I_D$<br>$\mu A$ | @ 0V, 1 MHz<br>$C_l$<br>pF |
| SFC05-4                                                               | 5.0                     | 6.0                          | 9.5                                   | 11.0V @ 24A                           | 10                             | 150                        |

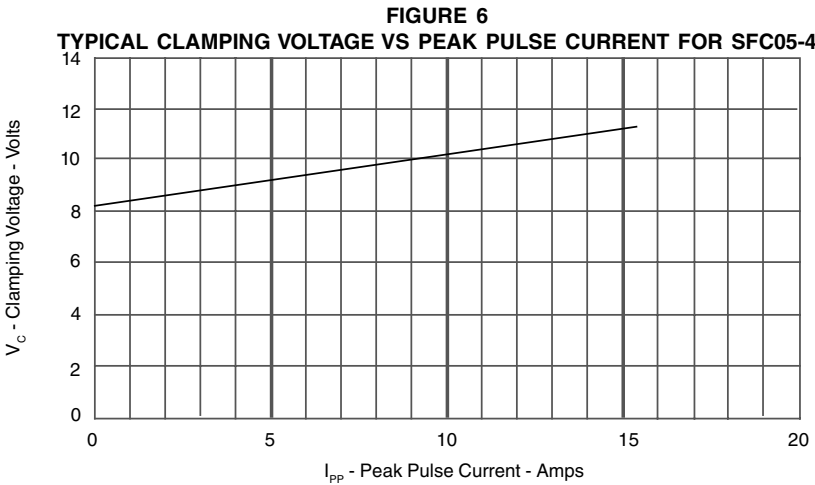
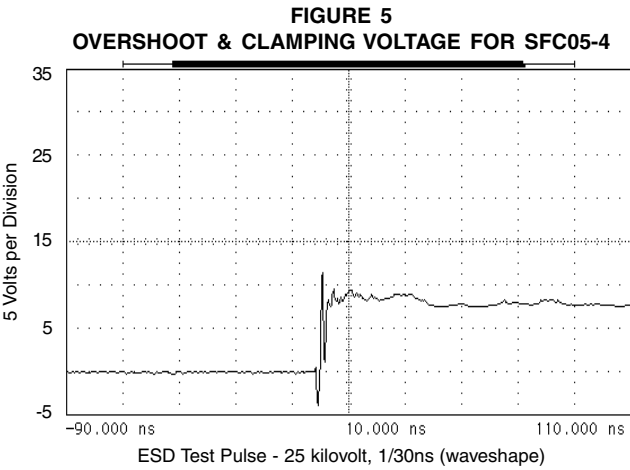
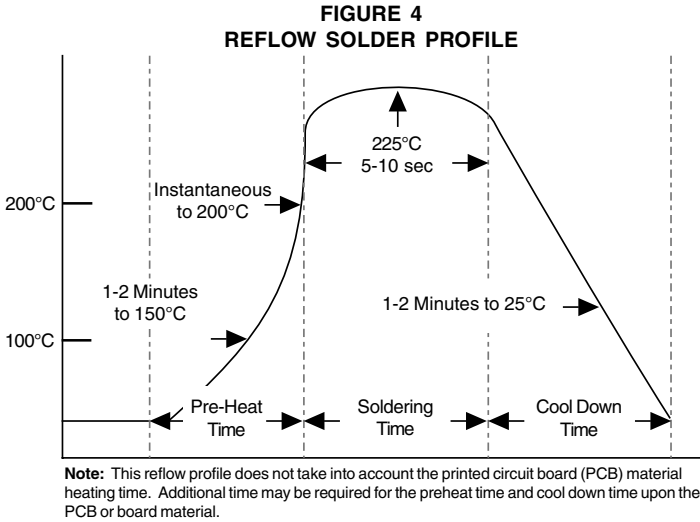
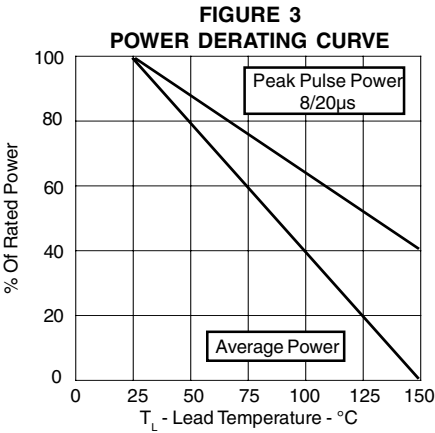
**FIGURE 1**  
PEAK PULSE POWER VS PULSE TIME



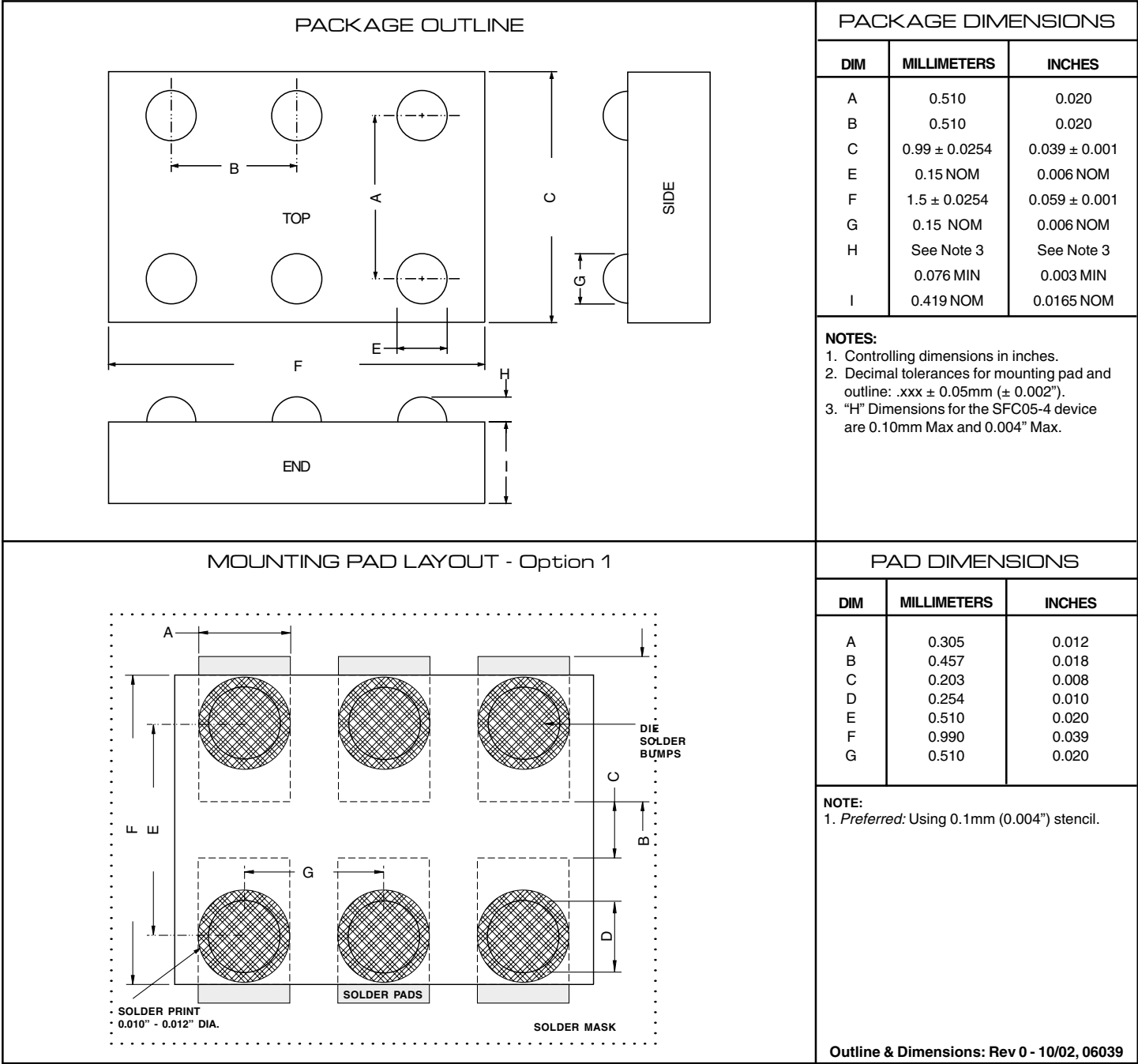
**FIGURE 2**  
PULSE WAVE FORM



GRAPHS



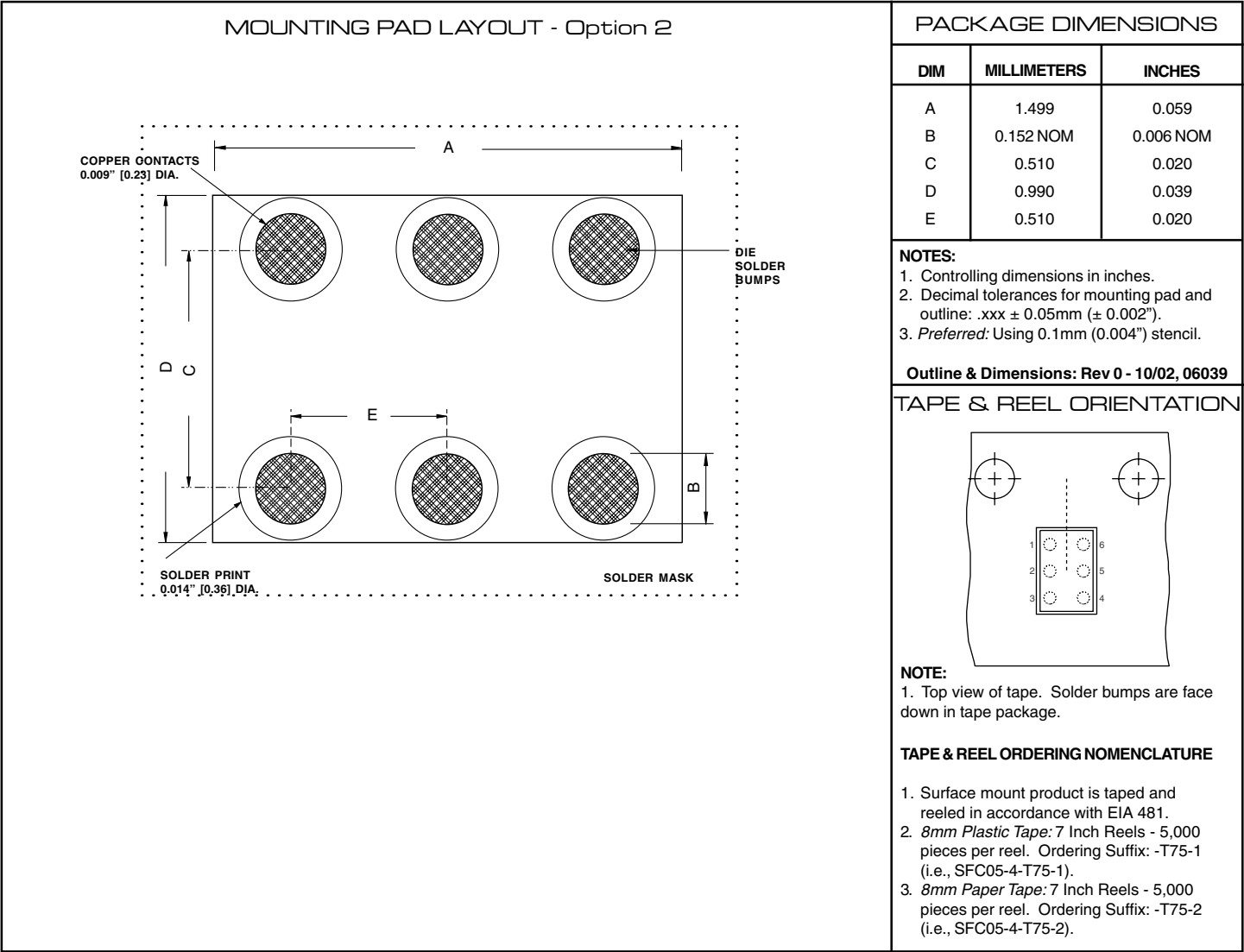
PACKAGE OUTLINE & DIMENSIONS



MOUNTING PAD LAYOUT - Option 1

The diagram shows the mounting pad layout for Option 1. It shows a rectangular area with six circular mounting pads arranged in two rows of three. Dimensions A, B, C, D, E, F, and G are indicated. The diagram also shows the location of the solder print, solder mask, and die solder bumps.

PACKAGE OUTLINE & DIMENSIONS



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