

PENTA FLIP CHIP TVS ARRAY**APPLICATIONS**

- ✓ Cellular Phones
- ✓ Personal Digital Assistants (PDAs)
- ✓ Handheld Devices
- ✓ Ground Positioning Systems (GPS)
- ✓ SMART Cards & 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, 8/20 μ s - Level 2(Line-Gnd) & Level 3(Line-Line)

FEATURES

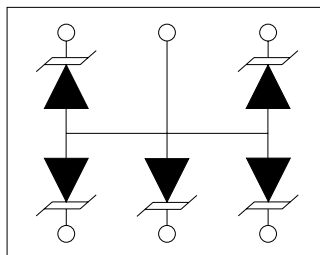
- ✓ ESD Protection > 25 kilovolts
- ✓ Protects up to Five (5) Unidirectional & Four (4) Bidirectional Lines
- ✓ 300 Watts Peak Pulse Power per Line (td=8/20 μ s)

MECHANICAL CHARACTERISTICS

- ✓ Weight 0.73 milligrams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Plastic & Paper Tape and Reel Per EIA Standard 481-1-A
- ✓ Device Marking On Reel
- ✓ Top Contacts: Solder Bump 0.004" in Height (Nominal)

Picture
Not Available

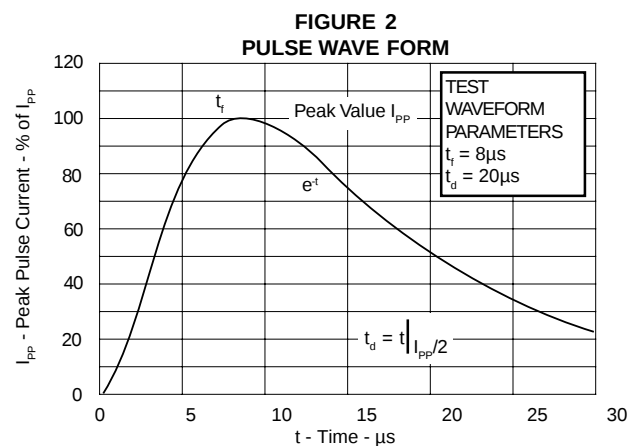
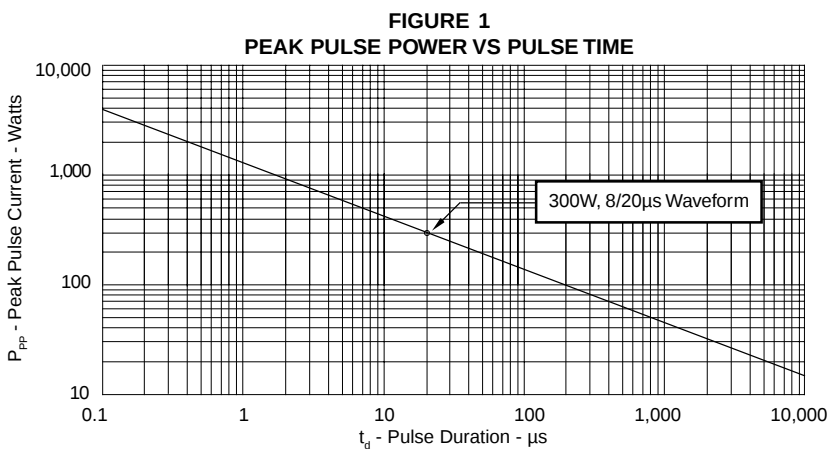
0406

CIRCUIT DIAGRAM**BOTTOM VIEW**

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} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ $I_P = 5A$ V_C VOLTS	@ 8/20 μs $V_C @ I_{PP}$	@ V_{WM} I_D μA	0V @ 1 MHz C pF
SFC05-5	5.0	6.0	9.5	11.0V @ 24A	10	75



GRAPHS

FIGURE 3
POWER DERATING CURVE

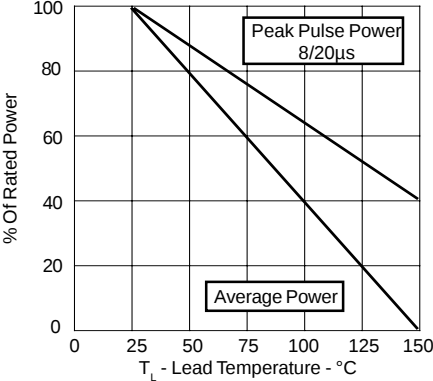
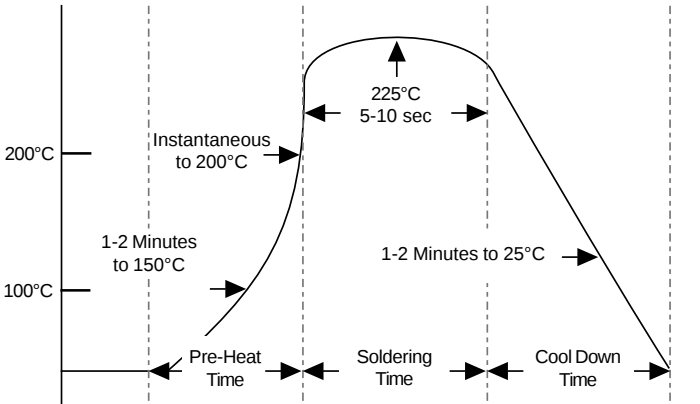


FIGURE 4
REFLOW SOLDER PROFILE



Note: This reflow profile does not take into account the printed circuit board (PCB) material heating time. Additional time may be required for the preheat time and cool down time upon the PCB or board material.

FIGURE 5
OVERSHOOT & CLAMPING VOLTAGE FOR SFC05-5

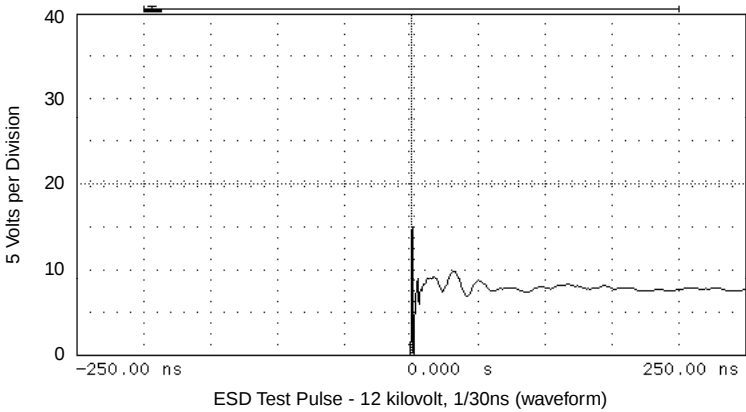
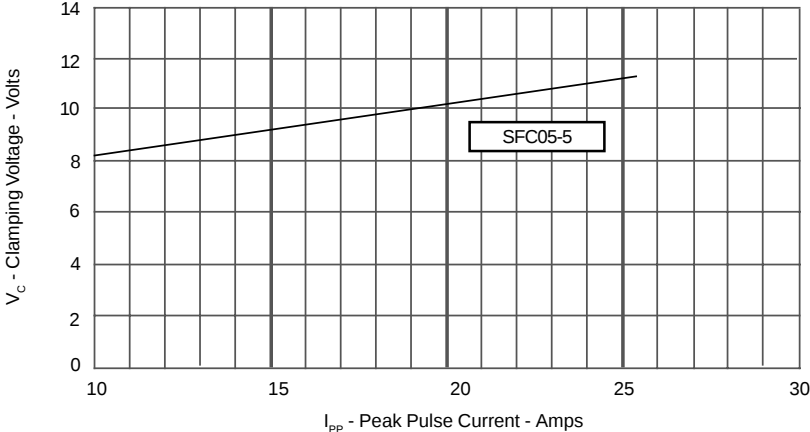
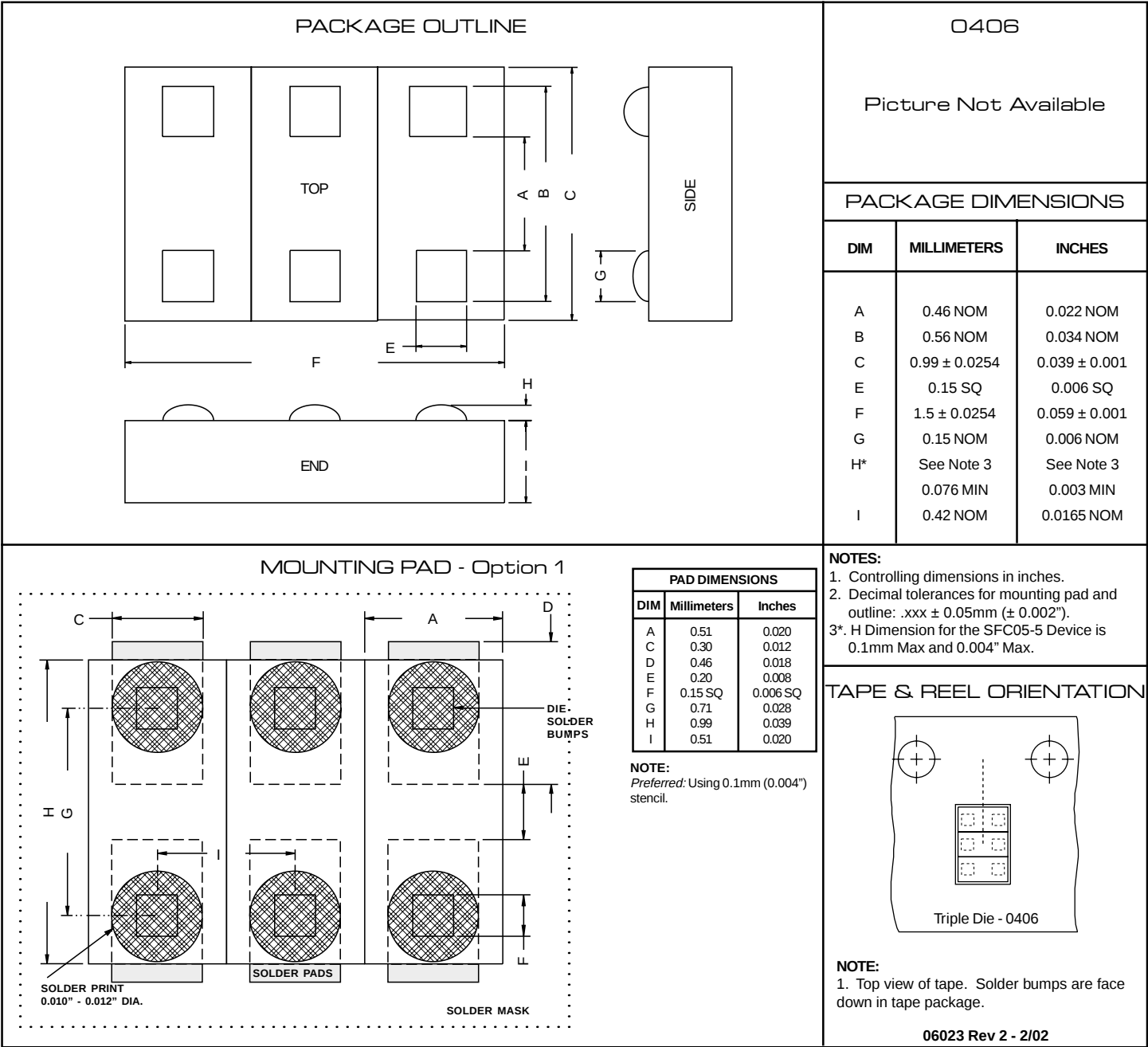


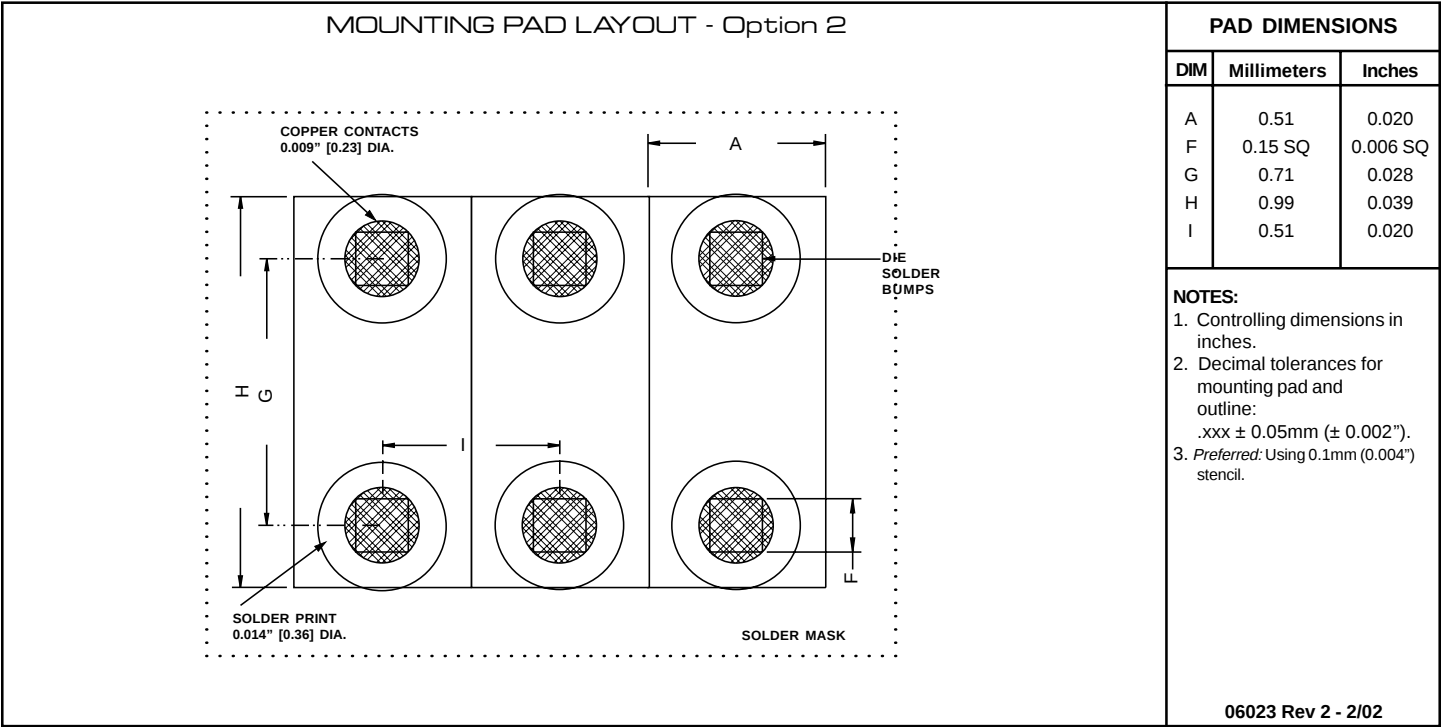
FIGURE 6
TYPICAL CLAMPING VOLTAGE VS PEAK PULSE CURRENT



PACKAGE OUTLINE & DIMENSIONS



PACKAGE OUTLINE & DIMENSIONS



TAPE & REEL PACKAGING:

Surface mount product is taped and reeled in accordance with EIA-481, reel quantities and sizes are as follows:
Paper Tape: 7 Inch Reel - 3,000 or 10,000 pieces per reel. Plastic Tape: 7 Inch Reel - 3,000 or 5,000 per reel.

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