



P0406FC3.3C* thru P0406FC36C*

BIDIRECTIONAL FLIP CHIP

APPLICATIONS

- ✓ Cellular Phones
- ✓ MCM Boards
- ✓ Wireless Communication Circuits
- ✓ IR LEDs
- ✓ SMART Cards & PCMCIA Cards

IEC COMPATIBILITY (EN61000-4)

- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

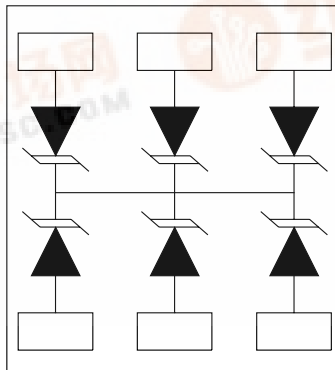
- ✓ ESD Protection > 25 kilovolts
- ✓ Available in Multiple Voltage Types Ranging From 3.3V to 36V
- ✓ 250 Watts Peak Pulse Power Dissipation per Line (8/20µs)
- ✓ Monolithic Structure

MECHANICAL CHARACTERISTICS

- ✓ Standard EIA Chip Size: 0406
- ✓ 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)



CIRCUIT DIAGRAM



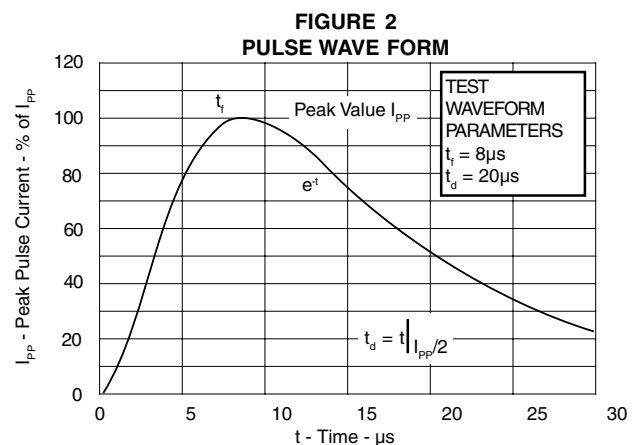
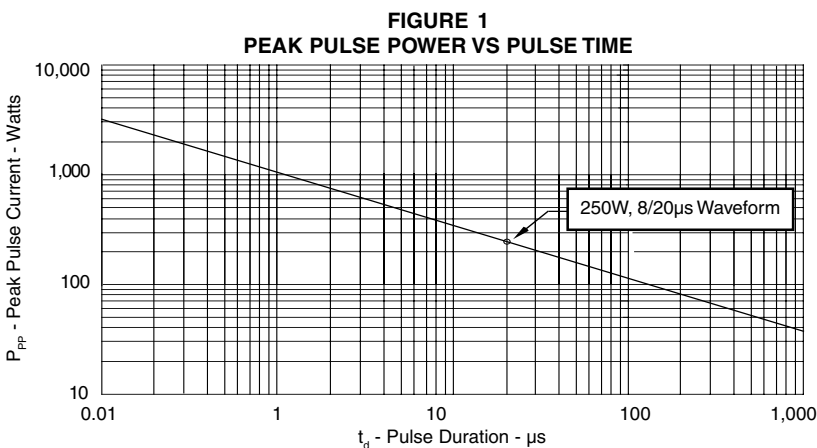
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DEVICE CHARACTERISTICS

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}	250	Watts
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C

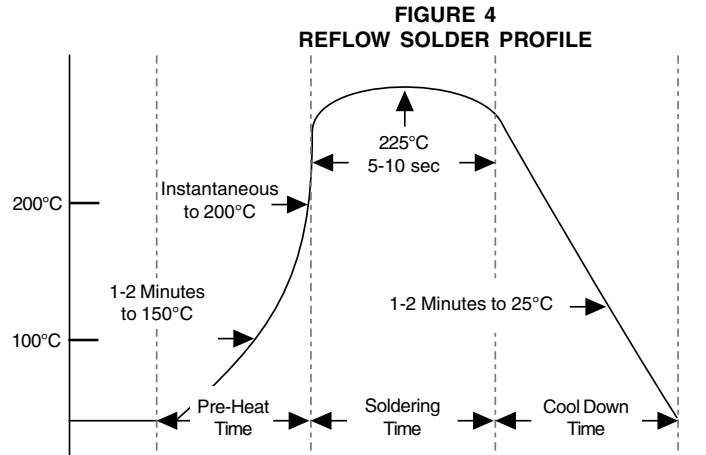
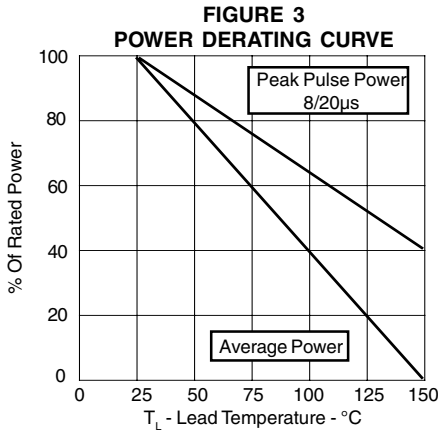
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified						
PART NUMBER (See Note 1)	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM CLAMPING VOLTAGE (See Fig. 2)	MAXIMUM LEAKAGE CURRENT	TYPICAL CAPACITANCE
		@ 1mA $V_{(BR)}$ VOLTS	@ $I_P = 1A$ V_C VOLTS	@ 8/20 μs $V_C @ I_{PP}$	@ V_{WM} I_D μA	0V @ 1 MHz C pF
P0406FC3.3C	3.3	4.0	7.0	12.5V @ 20A	75	150
P0406FC05C	5.0	6.0	9.8	14.7V @ 17A	10	100
P0406FC08C	8.0	8.5	13.4	19.2V @ 13A	10	75
P0406FC12C	12.0	13.3	19.0	29.7V @ 9.0A	1	50
P0406FC15C	15.0	16.7	24.0	35.7V @ 7.0A	1	40
P0406FC24C	24.0	26.7	43.0	55.0V @ 5.0A	1	30
P0406FC36C	36.0	40.0	64.0	84.0V @ 3.0A	1	25

Note 1: All devices are bidirectional. Electrical characteristics apply in both directions.

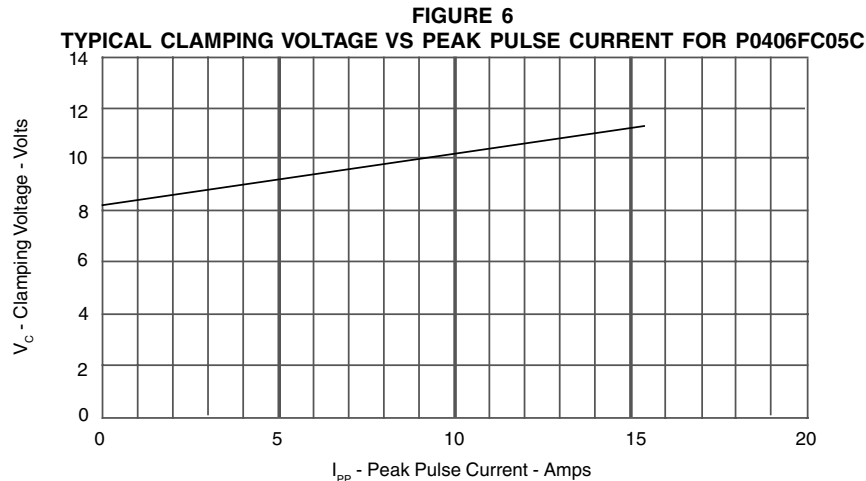
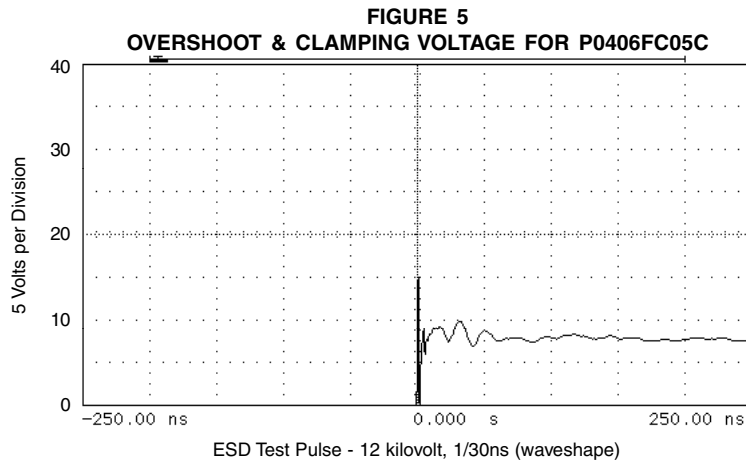


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GRAPHS



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.



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PACKAGE OUTLINE & DIMENSIONS

<p>PACKAGE OUTLINE</p>	<p>0406</p> <p>Picture Not Available</p>	
PACKAGE DIMENSIONS		
DIM	MILLIMETERS	INCHES
A	0.46 NOM	0.022 NOM
B	0.56 NOM	0.034 NOM
C	0.99 ± 0.0254	0.039 ± 0.001
E	0.15 SQ	0.006 SQ
F	1.5 ± 0.0254	0.059 ± 0.001
G	0.15 NOM	0.006 NOM
H	0.127 MAX	0.005 MAX
I	0.076 MIN	0.003 MIN
I	0.406 NOM	0.016 NOM

<p>MOUNTING PAD - Option 1</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">PAD DIMENSIONS</th> </tr> <tr> <th>DIM</th> <th>Millimeters</th> <th>Inches</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">A</td> <td style="text-align: center;">0.51</td> <td style="text-align: center;">0.020</td> </tr> <tr> <td style="text-align: center;">C</td> <td style="text-align: center;">0.30</td> <td style="text-align: center;">0.012</td> </tr> <tr> <td style="text-align: center;">D</td> <td style="text-align: center;">0.46</td> <td style="text-align: center;">0.018</td> </tr> <tr> <td style="text-align: center;">E</td> <td style="text-align: center;">0.20</td> <td style="text-align: center;">0.008</td> </tr> <tr> <td style="text-align: center;">F</td> <td style="text-align: center;">0.15 SQ</td> <td style="text-align: center;">0.006 SQ</td> </tr> <tr> <td style="text-align: center;">G</td> <td style="text-align: center;">0.71</td> <td style="text-align: center;">0.028</td> </tr> <tr> <td style="text-align: center;">H</td> <td style="text-align: center;">0.99</td> <td style="text-align: center;">0.039</td> </tr> <tr> <td style="text-align: center;">I</td> <td style="text-align: center;">0.51</td> <td style="text-align: center;">0.020</td> </tr> </tbody> </table> <p>NOTE: Preferred: Using 0.1mm (0.004") stencil.</p>	PAD DIMENSIONS			DIM	Millimeters	Inches	A	0.51	0.020	C	0.30	0.012	D	0.46	0.018	E	0.20	0.008	F	0.15 SQ	0.006 SQ	G	0.71	0.028	H	0.99	0.039	I	0.51	0.020
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<p>NOTES:</p> <ol style="list-style-type: none"> Controlling dimensions in inches. Decimal tolerances for mounting pad and outline: .xxx ± 0.05mm (± 0.002"). 	<p>TAPE & REEL ORIENTATION</p> <p style="text-align: center;">Triple Die - 0406</p> <p>NOTE:</p> <ol style="list-style-type: none"> Top view of tape. Solder bumps are face down in tape package.
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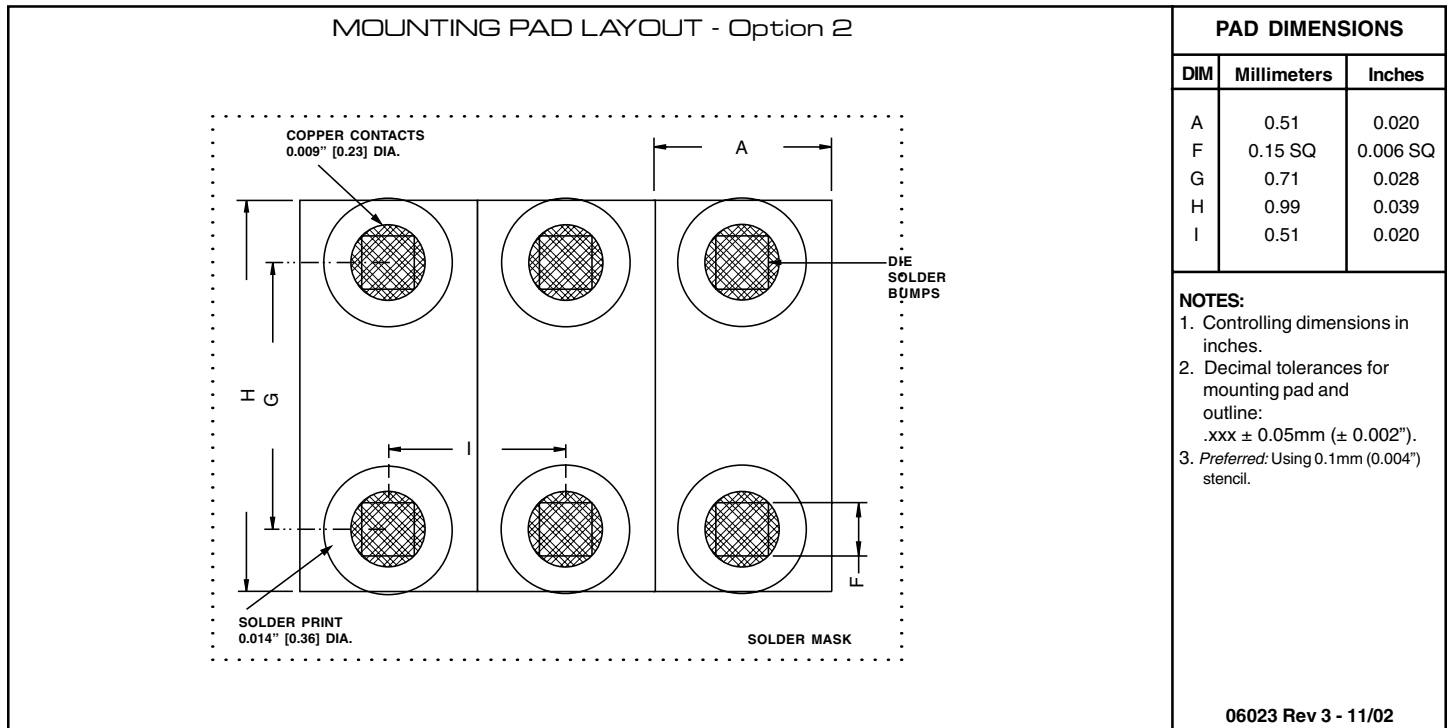
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TAPE & REEL ORDERING INFORMATION:

Surface mount product is taped and reeled in accordance with EIA-481.
 Plastic Tape: 7 Inch Reels - 5,000 pieces per reel. Ordering Suffix: -T75-1 (i.e., P0406FC05C-T75-1).
 Paper Tape: 7 Inch Reels - 5,000 pieces per reel. Ordering Suffix: -T75-2 (i.e., P0406FC05C-T75-2).

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PACKAGE OUTLINE & DIMENSIONS



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