

GE  
Grid Solutions

# DC Capacitors

Product Selection & Application  
Guide Capacitors for High Current,  
Power Semiconductor and  
DC Applications



## Product Selection & Application Guide

Capacitors for power electronics require special high performance designs for varied applications. This catalog describes capacitors for a number of demanding applications where high currents and/ or high voltages are common. Given the special nature of these types of applications, care must be taken to ensure that the capacitors are correctly applied. Information is included to help with the more common application conditions. An application data sheet is also provided to enlist the help of GE's Application Engineers. Please use this sheet if you need assistance or want to verify your own calculations.



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# Application and Selection Guide

## Capacitor Application Data Sheet

To ensure correct selection of a capacitor for your application, please provide the information indicated below. This sheet may be duplicated or additional copies may be obtained from GE. Of particular importance are the voltage and current waveforms complete with values of voltage and current over a complete cycle.

Send this data to your local GE Sales Office or directly to:

GE Grid Solutions LLC  
Capacitor & Power Quality Products  
1925 Calumet Street  
Clearwater, FL 33765

Attn: Industrial Capacitor Sales

### PRIMARY INFORMATION (Essential)

Company Name \_\_\_\_\_ Tel No. (Incl. Country & City codes) \_\_\_\_\_

Address \_\_\_\_\_ FAX No. \_\_\_\_\_

Person to contact \_\_\_\_\_

1. Application \_\_\_\_\_

2. Capacitance \_\_\_\_\_ Tolerance: \_\_\_\_\_

3. Peak Voltage \_\_\_\_\_ RMS Voltage \_\_\_\_\_ Voltage Reversal (%) \_\_\_\_\_

4. Peak Current \_\_\_\_\_ RMS Current \_\_\_\_\_

5. Transient Voltage \_\_\_\_\_ Duration \_\_\_\_\_ Freq. of Occurrence \_\_\_\_\_

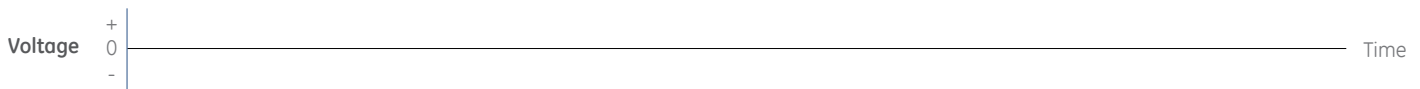
6. Frequency or Repetition Rate (Hz) \_\_\_\_\_ Duty Cycle \_\_\_\_\_

7. Ambient Temperature \_\_\_\_\_ Max. \_\_\_\_\_ Min. \_\_\_\_\_

8. Capacitor Charge Time \_\_\_\_\_ Discharge Time \_\_\_\_\_

9. Required Operating Life (Hours) \_\_\_\_\_

10. Waveforms



### SECONDARY INFORMATION (Provide as Appropriate)

11. Physical Size Limitations \_\_\_\_\_

12. Mounting Requirements \_\_\_\_\_

13. Applicable Specifications \_\_\_\_\_

14. Type of Cooling Available \_\_\_\_\_

15. Unusual Atmospheric Conditions \_\_\_\_\_

16. Other Special Requirements \_\_\_\_\_

17. Potential Usage \_\_\_\_\_

## Descriptive Information

### Film Foil Electrode Construction

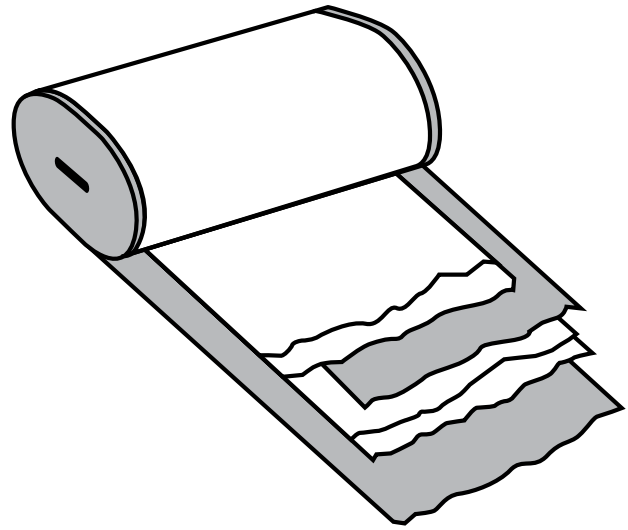
GE's Foil Electrode capacitors are manufactured with sheets of high quality aluminum foil as the electrodes. The dielectric consists of two sheets of polypropylene film. The film is manufactured in GE's own Capacitor Materials Operation. It is specially designed with a rough surface to allow impregnation by the dielectric fluid. The aluminum foil electrodes extend, one on each end of the capacitor roll, so that a solder connection can be made. Depending on the typical current for the type of capacitor, the internal connections from the roll ends to the terminals are either braided cables or tin-plated copper straps. This construction provides capacitors that are inherently capable of handling high RMS and peak currents.

### DIELECTRIC FLUIDS

GE's dielectric fluids are chosen for specific characteristics that match the other components in the capacitor dielectric system and the applications for which the capacitors are intended. Each fluid is based on one or two major constituents and blended with proprietary additives for optimum performance.

#### DIELEKTROL VII

A Benzyl Toluene-based fluid used for film/foil high current products.



Polypropylene Film

Polypropylene Film

Foil

Polypropylene Film

Polypropylene Film

Foil

# SCR Commutation Capacitors

## A97F8600 / A97F8700 Series 600 to 1500 Volts Peak

This family of capacitors is designed for high-current applications, such as (1) SCR commutation, (2) snubbers for SCRs, GTOs and other power semiconductors, and (3) for any other circuits where the combination of frequency and voltage results in high RMS currents. An Application Note is provided to assist in the proper use of these devices. It is strongly recommended that users refer to GE engineers for assistance if there are any questions as to the correct selection of capacitors. The A97F8600/A97F8700 Series have an all-film dielectric and, due to the much lower dissipation factor, can handle much higher currents than the older film paper designs.

Advances in capacitor Dielectric technology have made paint unnecessary, in most cases. This along with GE's commitment to environmental programs has led to the elimination of painted cases in this product line. Removal of the paint has minimal affect on the RMS current ratings; see the standard ratings charts for proper application.



## Specifications

|  |   |
|--|---|
| Available Capacitance Range            | 1 to 50 uF  |
| Capacitance Tolerance                  | ± 10 %  |
| Capacitance Variation with Temperature | ± 3% from -55°C to +85°C  |
| Rated Voltage                          | See Ratings Tables. Rating is the Maximum Peak voltage permissible in either polarity.  |
| Rated Current                          | See Ratings Tables. The value given is for derating purposes only. Refer to the Application Note on Page 12 to determine the required derating. In no circumstances should the RMS Current rating of the terminals be exceeded. |
| Operating Temperature                  | -40°C to +75°C  |
| Storage Temperature                    | -55°C to +90°C  |
| Operating Life                         | 40,000 hours with 95% survival with proper derating   |
| Dissipation Factor                     | 0.02% maximum   |
| Case Material/Finish                   | Oval Case & Cover: Unpainted Aluminum<br>Rectangular Case & Cover: Unpainted Steel  |
| Terminations/Hardware                  | 1/4 - 20 screw thread studs (60 A RMS maximum)<br>3/8 - 16 screw thread studs (100 A RMS maximum)<br>Case Styles C* and D* have 100-A terminals.<br>Nut and washer hardware is supplied in bag                                  |
| Dielectric Fluid                       | Dielektrol VII  |
| Internal Protection                    | These capacitors do not contain an internal protection mechanism. The user is responsible for ensuring that the capacitors are correctly applied for safe use.  |

\* Denotes 3/8-16; 100 Amp Terminal

# SCR Commutation Capacitors

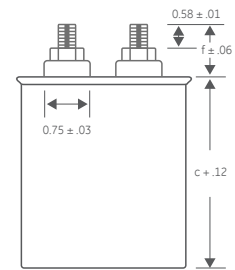
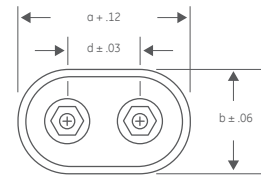
## STANDARD RATINGS

| Capacitance (uF)      | Catalog #  | Case Style | Height c (in) | Current (A) |
|-----------------------|------------|------------|---------------|-------------|
| <b>600 Volts Peak</b> |            |            |               |             |
| 2                     | A97F8670S  | A          | 2.38          | 38          |
| 5                     | A97F8671S  | A          | 4.50          | 86          |
| 10                    | A97F8672S  | C          | 4.25          | 136         |
| 20                    | A97F8673S  | D          | 5.25          | 235         |
| 30                    | A97F8674S  | D          | 7.25          | 339         |
| 40                    | A97F8675SC | G          | 5.00          | 414         |
| 50                    | A97F8676SC | G          | 6.00          | 640         |
| <b>800 Volts Peak</b> |            |            |               |             |
| 1                     | A97F8677S  | A          | 2.62          | 28          |
| 2                     | A97F8678S  | A          | 3.50          | 47          |
| 5                     | A97F8679S  | C          | 3.88          | 92          |
| 10                    | A97F8680S  | C          | 5.75          | 158         |
| 20                    | A97F8681SC | G          | 5.00          | 276         |
| 25                    | A97F8682SC | G          | 6.00          | 340         |
| 30                    | A97F8683SC | G          | 6.00          | 394         |

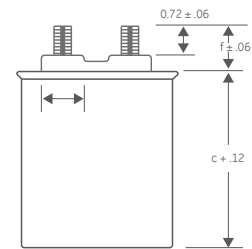
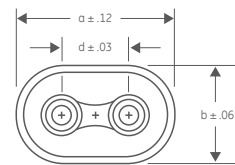
All units are unpainted case & cover

| Case Style | a    | b    | D    | f    |
|------------|------|------|------|------|
| A          | 2.16 | 1.31 | 0.81 | 1.18 |
| C          | 2.91 | 1.91 | 1.38 | 1.12 |
| D          | 3.66 | 1.97 | 1.38 | 1.12 |
| C*         | 2.91 | 1.91 | 1.25 | 0.91 |
| D*         | 3.66 | 1.97 | 1.25 | 0.91 |

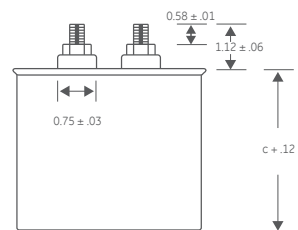
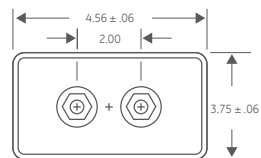
\* Denotes 3/8-16; 100 Amp Terminal



Case Styles A, C and D



Case Styles C\* and D\*



Case Styles G

# SCR Commutation Capacitors

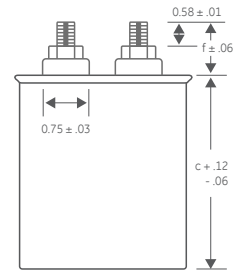
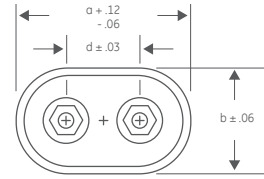
## STANDARD RATINGS

| Capacitance (uF)       | Catalog #  | Case Style | Height c (in) | Current (A) |
|------------------------|------------|------------|---------------|-------------|
| <b>1000 Volts Peak</b> |            |            |               |             |
| 2                      | A97F8614S  | A          | 4.75          | 55          |
| 3                      | A97F8615S  | C          | 3.88          | 71          |
| 5                      | A97F8616S  | C          | 4.75          | 102         |
| 5                      | A97F8617S  | C*         | 5.25          | 107         |
| 10                     | A97F8618S  | D          | 6.25          | 182         |
| 10                     | A97F8619S  | D*         | 6.75          | 189         |
| 50                     | A97F8676SC | G          | 6.00          | 640         |
| <b>1500 Volts Peak</b> |            |            |               |             |
| 1                      | A97F8620S  | A          | 3.88          | 35          |
| 2                      | A97F8621S  | C          | 3.88          | 58          |
| 3                      | A97F8622S  | C          | 4.50          | 76          |
| 5                      | A97F8623S  | C          | 6.25          | 116         |
| 5                      | A97F8624S  | C*         | 6.75          | 121         |
| 10                     | A97F8625SC | G          | 5.00          | 207         |

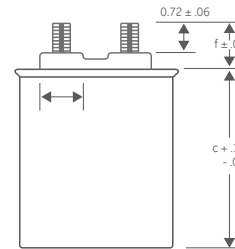
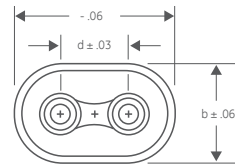
All units are unpainted case & cover

| Case Style | a    | b    | d    | f    |
|------------|------|------|------|------|
| A          | 2.16 | 1.31 | 0.81 | 1.18 |
| C          | 2.91 | 1.91 | 1.38 | 1.12 |
| D          | 3.66 | 1.97 | 1.38 | 1.12 |
| C*         | 2.91 | 1.91 | 1.25 | 0.91 |
| D*         | 3.66 | 1.97 | 1.25 | 0.91 |

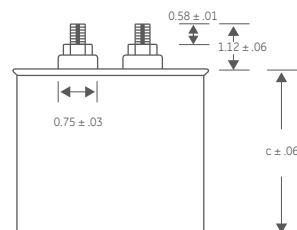
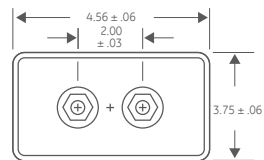
\* Denotes 3/8-16; 100 Amp Terminal



Case Styles A, C and D



Case Styles C\* and D\*



Case Styles G

## SCR Commutation Capacitors

### 97F7500 Series SCR Commutation Capacitors 250 Volts Peak

The 97F7500 Series is a special purpose line designed for applications where a large micro-farad value at low voltage is required in a small size. The dielectric system is self clearing metallized polypropylene. Typical applications are in SCR chopper circuits and low-voltage ac filters. Refer to Application Note on page 12 for assistance in the correct application of these capacitors.

Please note that previous offering of these capacitors was with painted cases, to improve heat dissipation. The units will no longer be painted as part of GE's commitment to environmental programs. Please note the change in RMS current ratings from previous catalogs.



### Specifications

|   |   |
|---|---|
| Available Capacitance Range:            | 25 to 200 uF  |
| Capacitance Tolerance:                  | ± 10 %  |
| Capacitance Variation with Temperature: | ± 3% from -20°C to +80°C  |
| Rated Voltage:                          | 250 V Peak. The rating is the Maximum Peak voltage permissible in either polarity.  |
| Rated Current:                          | See Ratings Tables. The value given is for de-rating purposes only. Refer to the Application Note on Page 12 to determine the required de-rating. In no circumstances should the RMS current rating of the terminals be exceeded. |
| Operating Temperature:                  | -40°C to +70°C  |
| Storage Temperature:                    | -55°C to +90°C  |
| Operating Life:                         | 40,000 hours with 95% survival with proper de-rating  |
| Dissipation Factor:                     | 0.3% maximum @ 1 kHz<br>0.1% maximum @ 120 Hz   |
| Case Material/Finish:                   | Oval Case & Cover: Aluminum<br>Unpainted Case & Cover   |
| Terminations/Hardware:                  | 1/4 - 20 screw thread studs (60 A RMS maximum)  |
| Dielectric Fluid:                       | Epoxidized Soybean Oil  |

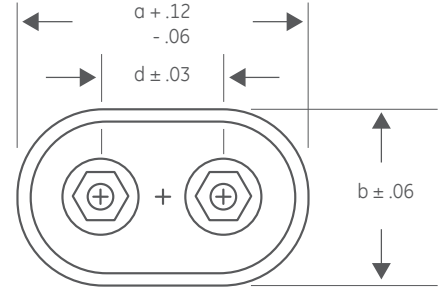


# SCR Commutation Capacitors

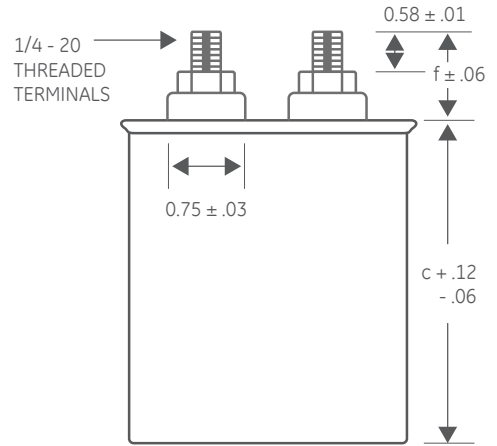
## STANDARD RATINGS

| Capacitance (uF)      | Catalog # | Case Style | Height c (in) | Current (A)** |
|-----------------------|-----------|------------|---------------|---------------|
| <b>250 Volts Peak</b> |           |            |               |               |
| 50                    | 97F7520S  | C          | 3.12          | 27            |
| 100                   | 97F7514S  | D          | 3.50          | 45            |
| 125                   | 97F7513S  | D          | 4.25          | 55            |
| 150                   | 97F7512S  | D          | 4.75          | 64            |

\*\*NOTE ALL RMS CURRENT RATINGS ARE FOR UNPAINTED UNITS



| Case Style | a    | b    | d    | f    |
|------------|------|------|------|------|
| C          | 2.91 | 1.91 | 1.38 | 1.12 |
| D          | 3.66 | 1.97 | 1.38 | 1.12 |



# Snubber Capacitors

## A28F5000S Series Snubber Capacitors 1000 and 2000 Volts Peak/Max DC

The A28F5000S series of Snubber Capacitors are designed for use in power semiconductor circuits to protect the semiconductor by limiting the rate of voltage rise. The dielectric system is polypropylene with foil electrodes. The RMS currents encountered in these circuits are usually low; however, the peak currents are very high. Refer to the Application Data correct application of these capacitors.



## Specifications

|   |  |
|---|--|
| Available Capacitance Range:            | 0.05 to 2 $\mu$ F  |
| Capacitance Tolerance:                  | $\pm 10\%$   |
| Capacitance Variation with Temperature: | $\pm 3\%$ from $-30^{\circ}\text{C}$ to $+80^{\circ}\text{C}$  |
| Rated Voltage:                          | See Ratings Table. The rating is the Maximum Peak voltage permissible in either polarity.  |
| Rated Current:                          | See Ratings Tables. The value given is for de-rating purposes only. Refer to the Application Note on Page 12 to determine the required de-rating. In no circumstances should the 10 Amp RMS Current rating of the eyelet terminals be exceeded. For 1/4-20 threaded terminals, full current less any de-rating may be applied. |
| Operating Temperature:                  | $-40^{\circ}\text{C}$ to $+70^{\circ}\text{C}$   |
| Storage Temperature:                    | $-55^{\circ}\text{C}$ to $+90^{\circ}\text{C}$   |
| Operating Life:                         | 40,000 hours with 95% survival with proper de-rating   |
| Dissipation Factor:                     | 0.02% maximum  |
| Case Material/Finish:                   | Aluminum Case with Steel Cover for eyelet terminal designs; Aluminum Case with Aluminum Cover for *Threaded terminals.   |
| Terminations:                           | 0.125-in. Solder Eyelets (10 Amp RMS maximum) & 1/4-20 screw thread studs (60 A RMS maximum) For threaded terminal designs, nut and washer hardware is supplied in bag   |
| Dielectric Fluid:                       | Dielektrol VII   |
| Internal Protection:                    | Internal Pressure Sensitive Interrupter for eyelet designs. Threaded terminal designs do not contain an internal protection mechanism. The user is responsible for ensuring that the capacitors are correctly applied for safe use.  |

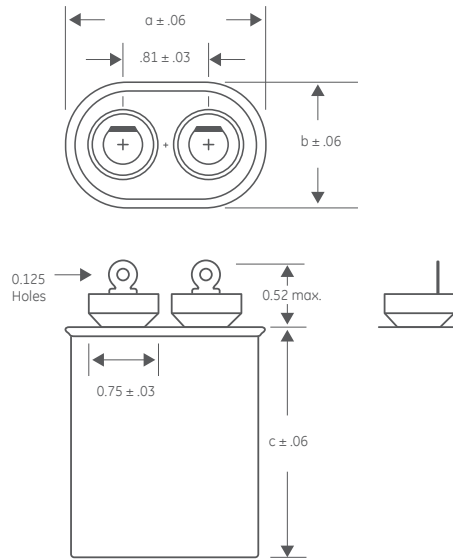
## A28F5000 Series Snubber Capacitors

### STANDARD RATINGS\*

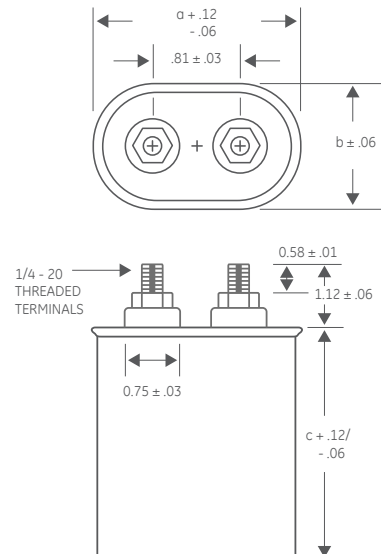
| Capacitance (uF)              | Catalog # | Case Style | Height c (in) | Current (A) |
|-------------------------------|-----------|------------|---------------|-------------|
| <b>1000 Volts Peak/Max DC</b> |           |            |               |             |
| 0.5                           | A28F5502S | A          | 2.12          | 6           |
| 1.0                           | A28F5503S | A          | 2.12          | 7           |
| 2.0                           | A28F5504S | A          | 2.88          | 11          |
| <b>2000 Volts Peak/Max DC</b> |           |            |               |             |
| 0.05                          | A28F5600X | A          | 2.12          | 2           |
| 0.10                          | A28F5601X | A          | 2.12          | 3           |
| 0.10                          | A28F5615X | A*         | 2.12          | 3           |
| 0.25                          | A28F5602X | A          | 2.12          | 4           |
| 0.25                          | A28F5605X | A*         | 2.12          | 4           |
| 0.50                          | A28F5603X | A          | 2.88          | 7           |
| 0.50                          | A28F5606X | A*         | 2.88          | 7           |
| 1.0                           | A28F5604X | A          | 4.50          | 12          |
| 1.0                           | A28F5607X | A*         | 4.50          | 12          |
| 2.0                           | A28F5688X | C          | 4.25          | 17          |
| 2.0                           | A28F5608X | C*         | 4.25          | 17          |

\* Denotes 1/4-20 threaded terminal styles

Note: A28F5608S has a terminal to terminal Dimension of 1.38" not .81"



| Case Style | a    | b    |
|------------|------|------|
| A          | 2.16 | 1.31 |
| C          | 2.91 | 1.91 |



# Application Data

## Application Data for SCR and Snubber Capacitors

This Application Note is designed to allow users to select the correct capacitor for two common conditions encountered in power electronic circuits:

- Sinusoidal waveform
- Squarewave

For applications that do not fit into either of these categories, please contact your GE sales representative for assistance.

To select the correct capacitor proceed as follows:

1. Determine the following:
  - (1) Microfarad value required
  - (2) Peak voltage
  - (3) RMS current
  - (4) Current pulsewidth
  - (5) Capacitor ambient temperature
2. Select a capacitor with the correct capacitance and a peak voltage equal to or greater than the application voltage.
3. Apply the correction factors on the opposite page for Current Pulsewidth and Ambient Temperature to the 55°C RMS Current Rating of the selected capacitor.

If the "corrected" RMS current value is equal to or greater than the RMS current of the application, the capacitor is suitable. If not, a capacitor with a higher current rating must be selected. This can be done by choosing a higher voltage capacitor. Note that the All-FilmA 97F8600 series has the highest current ratings.

Note: In no case should the actual RMS current exceed the limit of the capacitor terminals.

### Example No. 1

|                      |  |
|----------------------|--|
| Capacitance:         | 10mF   |
| Voltage:             | 200 Vac RMS 3 kHz<br>Sinewave                                      |
| Ambient Temperature: | 65°C   |
| Peak Voltage         | = $200 \times \sqrt{2} = 283$ Volts                                |
| RMS Current          | = $2p \times 3000 \times 10 \times 10^{-6} \times 200$<br>= 37.7 A |
| Current Pulsewidth   | = 166 us   |

The A97F8672 has a current rating of 136 A. Applying the correction factors for a 166 ms pulsewidth and a 65°C ambient:

$$\begin{aligned} \text{RMS current rating} &= 136 \times 0.56 \times 0.75 \\ &= 57.1 \text{ A} \end{aligned}$$

This capacitor is satisfactory.

Note the terminal limit of 60 amps.

### Example No. 2

|                      |  |
|----------------------|--|
| Capacitance:         | 5 uF   |
| Voltage:             | 60 Vac RMS 16.6 kHz<br>Sinewave                                    |
| Ambient Temperature: | 65°C   |
| Peak Voltage         | = $60\sqrt{2} = 85$ Volts  |
| RMS Current          | = $2p \times 16,600 \times 5 \times 10^{-6} \times 60$<br>= 31.3 A |
| Current Pulsewidth   | = 30 us  |

The A97F8671 is rated 86 amps which becomes 80.6A with the correction factors. This is more than adequate. Again, note the 60-A terminal limitation.

### Example No. 3

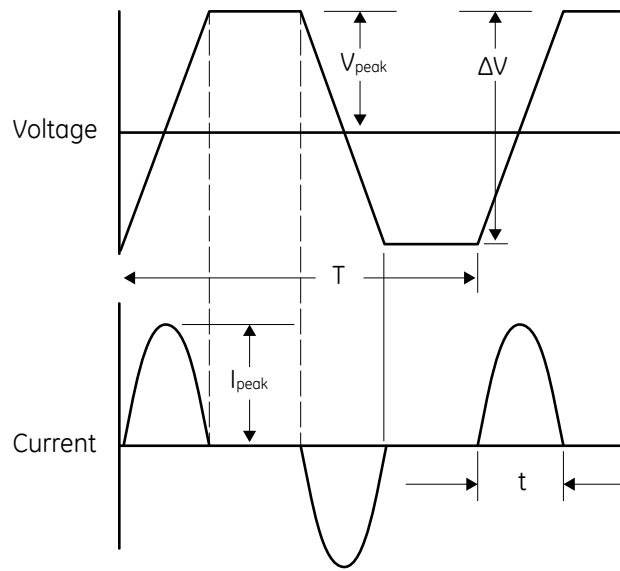
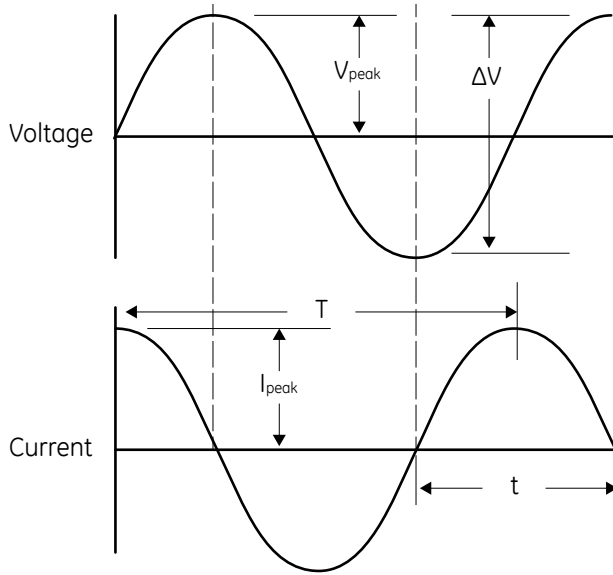
|                      |  |
|----------------------|--|
| Capacitance:         | 20 uF                                  |
| Voltage:             | 600 Vpeak unidirectional<br>Squarewave |
| Frequency:           | 200 Hz                                 |
| Rise Time:           | 60 us                                  |
| Fall Time:           | 60 us                                  |
| Ambient Temperature: | 65°C                                   |
| Peak Voltage         | = 600V                                 |

$$1 \text{ peak} = \frac{CDV}{0.64t} = \frac{20 \times 10^{-6} \times 600}{0.64 \times 60 \times 10^{-6}} = 313 \text{ A}$$

$$1 \text{ rms} = 313 \sqrt{60 \times 10^{-6} \times 200} = 32.4 \text{ A}$$

Current Pulsewidth = 60 ms

The A97F8673 has a peak voltage rating of 600 V and a current rating of 235 A. The correction factor for 65°C is 0.75, and for a 60 us pulsewidth it is 0.90. Thus its current rating in this application is  $235 \times 0.80 \times 0.90 = 158.6$  A; adequate for the application. Again, note the 60A terminal limitation.

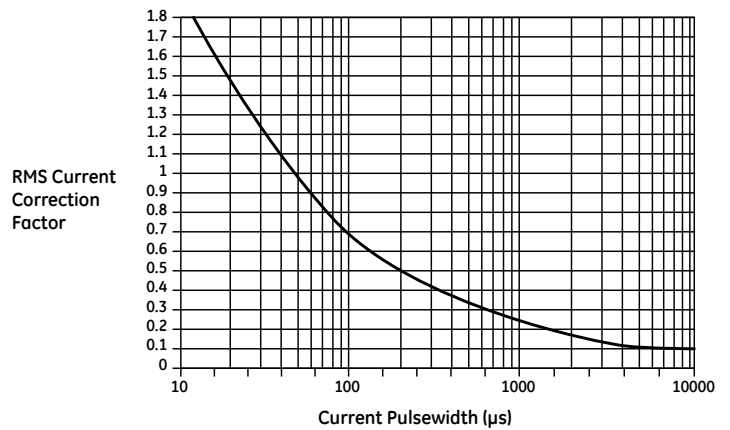


$$I_{rms} = 2p f C V_{rms} = \frac{DC}{t} v_{rms} \quad I_{peak} = \frac{DC}{t} DV = \frac{CDV}{0.64t}$$

$$V_{peak} = \sqrt{2} V_{rms} \quad I_{rms} = \sqrt{2 [I_{peak} \sqrt{t/T}]^2}$$

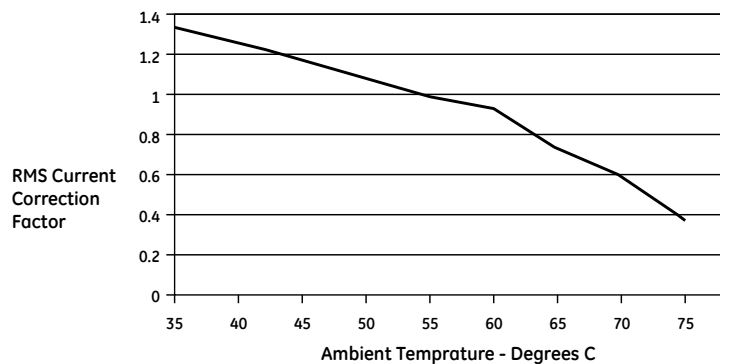
CORRECTION FACTOR FOR CURRENT PULSEWIDTH

RMS CURRENT CORRECTION FACTOR



CORRECTION FACTOR FOR AMBIENT PULSEWIDTH

RMS CURRENT CORRECTION FACTOR



# General Purpose DC Capacitors

## General Purpose DC Capacitors 1500 and 2500 Volts Peak

This line of General Purpose DC Capacitors is made with film dielectric technology for 1500V and 2500V ratings. These capacitors are typically used in DC filters at voltages above those served by electrolytic type construction.



## Specifications

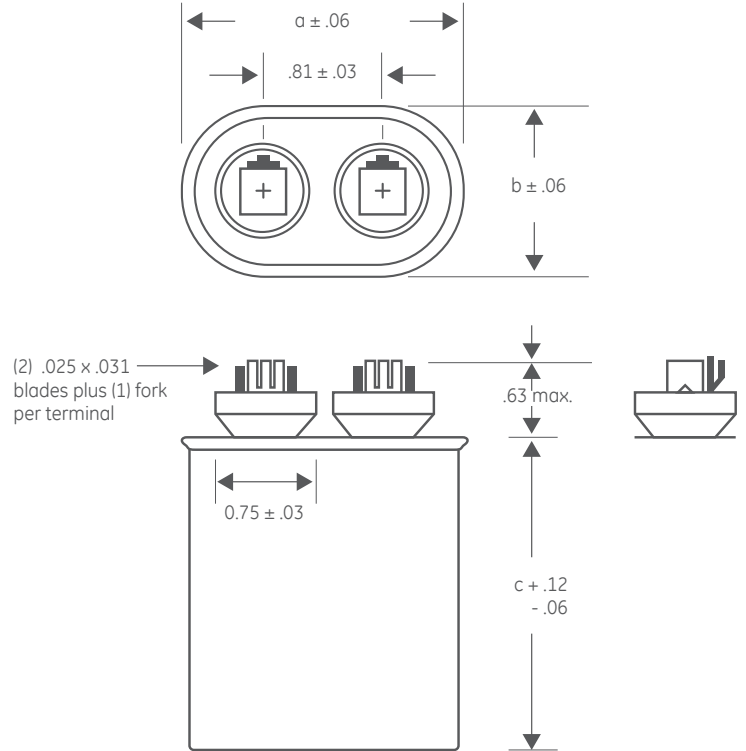
| Available Capacitance Range:            | 0.1 to 50 $\mu$ F  |           |                    |       |    |        |    |        |    |          |   |           |   |
|---|--|-----------|--------------------|-------|----|--------|----|--------|----|----------|---|-----------|---|
| Capacitance Tolerance:                  | 26F Series: $\pm$ 10 %   |           |                    |       |    |        |    |        |    |          |   |           |   |
| Capacitance Variation with Temperature: | $\pm$ 5% from -40°C to +70°C   |           |                    |       |    |        |    |        |    |          |   |           |   |
| Rated Voltage:                          | See Ratings Table. The rating is the Maximum Peak dc voltage.  |           |                    |       |    |        |    |        |    |          |   |           |   |
| Ripple Voltage:                         | The RMS ripple voltage should not exceed the following percentages of the rated voltage for these frequencies:   |           |                    |       |    |        |    |        |    |          |   |           |   |
|   | <table border="1"> <thead> <tr> <th>Frequency</th> <th>% of Rated Voltage</th> </tr> </thead> <tbody> <tr> <td>60 Hz</td> <td>30</td> </tr> <tr> <td>120 Hz</td> <td>20</td> </tr> <tr> <td>400 Hz</td> <td>14</td> </tr> <tr> <td>1,000 Hz</td> <td>8</td> </tr> <tr> <td>10,000 Hz</td> <td>1</td> </tr> </tbody> </table> | Frequency | % of Rated Voltage | 60 Hz | 30 | 120 Hz | 20 | 400 Hz | 14 | 1,000 Hz | 8 | 10,000 Hz | 1 |
| Frequency                               | % of Rated Voltage   |           |                    |       |    |        |    |        |    |          |   |           |   |
| 60 Hz                                   | 30   |           |                    |       |    |        |    |        |    |          |   |           |   |
| 120 Hz                                  | 20   |           |                    |       |    |        |    |        |    |          |   |           |   |
| 400 Hz                                  | 14   |           |                    |       |    |        |    |        |    |          |   |           |   |
| 1,000 Hz                                | 8  |           |                    |       |    |        |    |        |    |          |   |           |   |
| 10,000 Hz                               | 1  |           |                    |       |    |        |    |        |    |          |   |           |   |
| Operating Temperature:                  | -30°C to +70°C   |           |                    |       |    |        |    |        |    |          |   |           |   |
| Storage Temperature:                    | -55°C to +90°C   |           |                    |       |    |        |    |        |    |          |   |           |   |
| Operating Life:                         | 60,000 hours with 94% survival with proper derating  |           |                    |       |    |        |    |        |    |          |   |           |   |
| Dissipation Factor:                     | 0.02% maximum  |           |                    |       |    |        |    |        |    |          |   |           |   |
| Case Material/Finish:                   | Aluminum Case (NO PAINT)   |           |                    |       |    |        |    |        |    |          |   |           |   |
| Terminations:                           | (2) 0.25" x 0.031 inch quick connect blades, and one fork blade per terminal   |           |                    |       |    |        |    |        |    |          |   |           |   |
| Dielectric Fluid:                       | Dielektrol VII   |           |                    |       |    |        |    |        |    |          |   |           |   |
| Internal Protection:                    | Pressure Sensitive Interrupter   |           |                    |       |    |        |    |        |    |          |   |           |   |

# General Purpose DC Capacitors

## STANDARD RATINGS\*

| Capacitance (uF)       | Catalog # | Case Style | Height c (in) |
|------------------------|-----------|------------|---------------|
| <b>1500 Volts Peak</b> |           |            |               |
| 1                      | A26F7500S | A          | 2.12          |
| 2                      | A26F7501S | A          | 3.12          |
| 4                      | A26F7502S | C          | 3.12          |
| 5                      | A26F7503S | C          | 3.88          |
| 6                      | A26F7504S | C          | 4.25          |
| 8                      | A26F7505S | C          | 5.25          |
| 10                     | A26F7506S | D          | 5.25          |
| <b>2500 Volts Peak</b> |           |            |               |
| 0.1                    | A26F7515S | A          | 2.12          |
| 0.25                   | A26F7516S | A          | 2.12          |
| 0.5                    | A26F7517S | A          | 2.12          |
| 1.0                    | A26F7518S | A          | 3.12          |
| 2.0                    | A26F7519S | A          | 4.25          |
| 4.0                    | A26F7520S | C          | 4.25          |

| Case Style | a    | b    |
|------------|------|------|
| A          | 2.16 | 1.31 |
| B          | 2.69 | 1.56 |
| C          | 2.91 | 1.91 |
| D          | 3.66 | 1.97 |



\* Linear insulation withstand for comparison based on sum of units

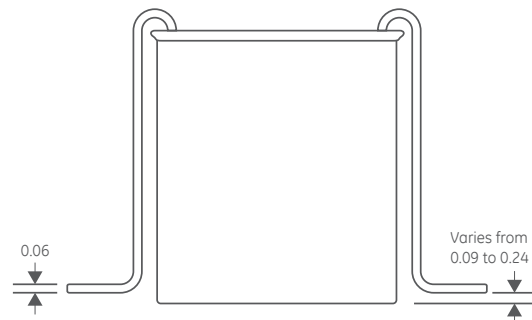
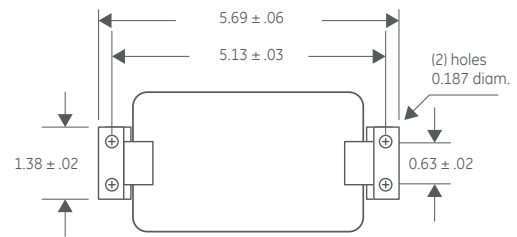
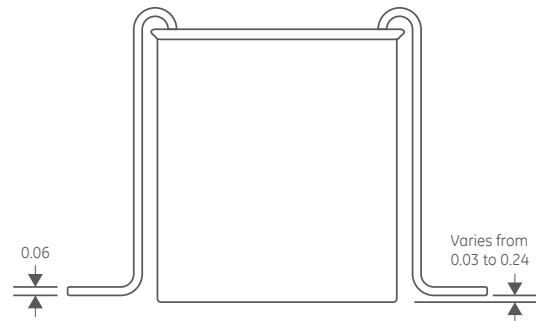
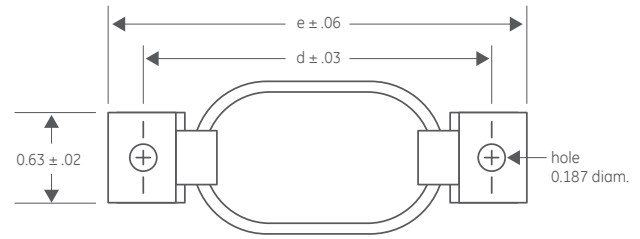
# Hardware and Accessories

## Mounting Hardware

### FOOTED BRACKETS FOR OVAL CASE STYLES (2 per Capacitor)

For the proper bracket, match the capacitor case\_brackets height to the case height shown next to the bracket part

| Case Height | Bracket Part Number |
|-------------|---------------------|
| 2.12        | 302C920000210       |
| 2.38        | 302C920000208       |
| 2.62        | 302C920000200       |
| 2.88        | 302C920000113       |
| 3.12        | 302C920000179       |
| 3.50        | 302C920000119       |
| 3.88        | 302C920000115       |
| 4.25        | 302C920000122       |
| 4.50        | 302C920000211       |
| 4.75        | 302C920000116       |
| 5.25        | 302C920000153       |
| 5.50        | 302C920000233       |
| 5.75        | 302C920000209       |
| 6.25        | 302C920000152       |
| 6.75        | 302C920000213       |
| 7.25        | 302C920000214       |



### FOOTED BRACKETS FOR RECTANGULAR CASE STYLE G (2 per Capacitor)

For the proper bracket, match the capacitor case\_brackets height to the case height shown next to the bracket part

| Case Height | Bracket Part Number |
|-------------|---------------------|
| 5.18        | 302C920000189       |
| 6.25        | 302C920000190       |
| 7.25        | 302C920000207       |
| 8.00        | 302C920000194       |
| 9.00        | 302C920000196       |

| Case Style | d    | e    |
|------------|------|------|
| **A        | 2.56 | 3.00 |
| B          | 3.13 | 3.56 |
| C          | 3.38 | 3.81 |
| D          | 4.13 | 4.56 |

\*\* Cannot be used on "A" base size units with threaded terminals (Aluminum covers).



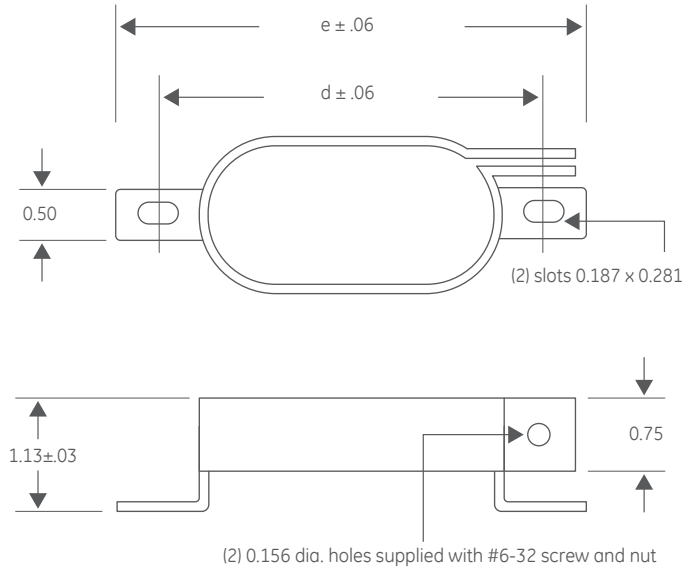
# Hardware and Accessories

## Mounting Hardware

### UNIVERSAL WRAPAROUND BRACKETS

FOR OVAL CASE STYLES

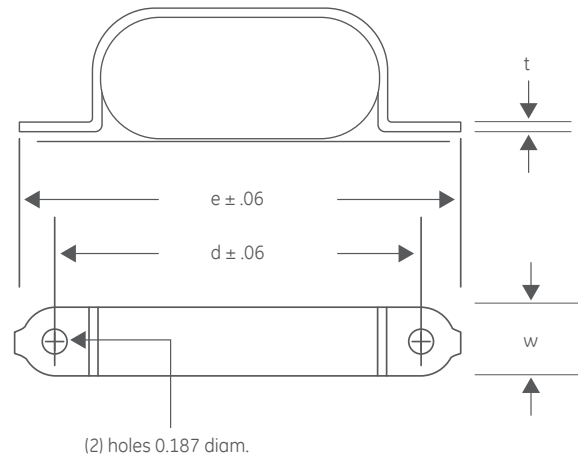
| Case Style | Bracket Part Number | d    | e    |
|------------|---------------------|------|------|
| A          | 128A2244AC021       | 2.69 | 3.13 |
| B          | 128A2244AC025       | 3.27 | 3.70 |
| C          | 128A2244AC022       | 3.44 | 3.88 |
| D          | 128A2244AC023       | 4.19 | 4.63 |



### WRAPAROUND BRACKETS FOR OVAL CASE STYLES

FOR OVAL CASE STYLES

| Case Style | Bracket Part Number | d    | e    | w    | t    |
|------------|---------------------|------|------|------|------|
| A          | 9827065000021       | 2.56 | 2.94 | 0.50 | 0.02 |
| B          | 9827065000031       | 3.06 | 3.50 | 0.63 | 0.02 |
| C          | 614A301000061       | 3.31 | 3.81 | 0.75 | 0.03 |
| D          | 614A301000051       | 4.06 | 4.56 | 0.75 | 0.03 |





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