

# Type 3186 85 °C Aluminum Electrolytic, Screw Terminal

## Best Value 85 °C High Capacitance Screw Terminal Type



While Type 3186's standard encasement is by compression with the capacitor element captured on an aluminum peg in the can bottom and a phenolic peg in the top, rilled construction is available. With rilled construction the element is secured by rills, spoon shaped dimples in the side of the can. Rilled construction offers the industry's highest vibration and shock withstanding and excellent heat transfer. Besides increasing ripple current handling, the rilled construction extends the great value of the Type 3186 into military and transportation applications that require rugged mechanical capability.

### Highlights

- Rilled cans withstand high shock and vibration
- High ripple current capability
- High capacitance per can

### Specifications

| Temperature Range               | -40 °C to +85 °C  |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
|---------------------------------|---|--------|--------|---------|---------|-------|------|------|------|------|------|--|-------|--------|--------|---------|---------|-------------------|------|------|------|------|------|--------------------|------|------|------|------|------|
| Rated Voltage Range             | 16 Vdc to 500 Vdc   |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| Capacitance Range               | 220 uF to 1.0 F   |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| Capacitance Tolerance           | -10% +75% ≤ 160 Vdc<br>-10% +50% ≥ 200 Vdc  |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| Leakage Current                 | ≤ 6√CV μA (6 mA max.) at 5 minutes  |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| Ripple Current Multipliers      | <p>Ambient Temperature</p> <table border="1"> <thead> <tr> <th>45 °C</th> <th>55 °C</th> <th>65 °C</th> <th>75 °C</th> <th>85 °C</th> </tr> </thead> <tbody> <tr> <td>2.24</td> <td>2.00</td> <td>1.73</td> <td>1.41</td> <td>1.00</td> </tr> </tbody> </table> <p>Frequency</p> <table border="1"> <thead> <tr> <th></th> <th>60 Hz</th> <th>120 Hz</th> <th>300 Hz</th> <th>1000 Hz</th> <th>≥10 kHz</th> </tr> </thead> <tbody> <tr> <td><b>16 – 100 V</b></td> <td>0.90</td> <td>1.00</td> <td>1.15</td> <td>1.25</td> <td>1.30</td> </tr> <tr> <td><b>200 – 500 V</b></td> <td>0.90</td> <td>1.00</td> <td>1.25</td> <td>1.40</td> <td>1.50</td> </tr> </tbody> </table> | 45 °C  | 55 °C  | 65 °C   | 75 °C   | 85 °C | 2.24 | 2.00 | 1.73 | 1.41 | 1.00 |  | 60 Hz | 120 Hz | 300 Hz | 1000 Hz | ≥10 kHz | <b>16 – 100 V</b> | 0.90 | 1.00 | 1.15 | 1.25 | 1.30 | <b>200 – 500 V</b> | 0.90 | 1.00 | 1.25 | 1.40 | 1.50 |
| 45 °C                           | 55 °C   | 65 °C  | 75 °C  | 85 °C   |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| 2.24                            | 2.00  | 1.73   | 1.41   | 1.00    |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
|                                 | 60 Hz   | 120 Hz | 300 Hz | 1000 Hz | ≥10 kHz |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| <b>16 – 100 V</b>               | 0.90  | 1.00   | 1.15   | 1.25    | 1.30    |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| <b>200 – 500 V</b>              | 0.90  | 1.00   | 1.25   | 1.40    | 1.50    |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| Low Temperature Characteristics | Impedance ratio: $Z_{-20^{\circ}\text{C}}/Z_{+25^{\circ}\text{C}}$<br>≤ 8 (16–50 Vdc)<br>≤ 4 (63–100 Vdc)<br>≤ 3 (150–500 Vdc)  |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| Endurance Life Test             | 1,500 h @ full load at 85 °C<br>ΔCapacitance ±10%<br>ESR 200% of limit<br>DCL 100% of limit   |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| Shelf Life Test                 | 500 h @ 85 °C<br>ΔCapacitance ±10%<br>ESR 175% of limit<br>DCL 100% of limit  |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| Vibration                       | 10 to 500 Hz, 0.75 mm or 10 g* if less,<br>3 directions, 2 h ea<br>Δ Capacitance: ±5%<br>no visible damage or leakage<br>*15 g if rilled construction   |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |
| <b>RoHS Compliant</b>           |   |        |        |         |         |       |      |      |      |      |      |  |       |        |        |         |         |                   |      |      |      |      |      |                    |      |      |      |      |      |

# Type 3186 85 °C Aluminum Electrolytic, Screw Terminal

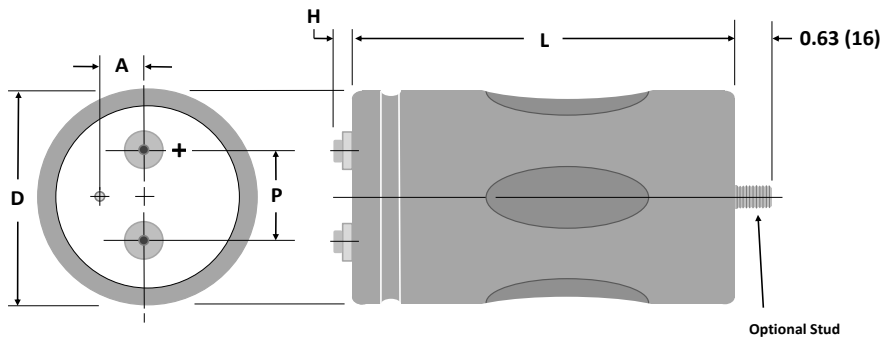
## Best Value 85 °C High Capacitance Screw Terminal Type

### Part Numbering System

|                                 |                                    |  |   |  |   |  |  |
|---------------------------------|------------------------------------|--|---|--|---|--|--|
| <b>3186</b><br> <br><b>Type</b> | <b>GH</b><br> <br><b>Case Code</b> | <b>562</b><br> <br><b>Capacitance</b><br>562=5600 µF<br>223=22000 µF<br>821=820 µF | <b>T</b><br> <br><b>Tolerance</b><br>M= ±20%<br>S= -10 +30%<br>T= -10 +50%<br>U= -10 +75% | <b>400</b><br> <br><b>Voltage</b><br>016=16 Vdc<br>450=450 Vdc | <b>M</b><br> <br><b>Terminal</b><br>A=high post<br>B=low post<br>D=high current<br>low post<br>K=high current<br>high post<br>M=M5 high post<br>J=M6 low post | <b>P</b><br> <br><b>Insulation</b><br>P=0.008" PVC<br>N=none<br>with mounting<br>clamp/bracket<br>R=0.008" PVC<br>X=none | <b>A1</b><br> <br><b>Construction*</b><br>A1=compression<br>R1=rilled<br>S1=stud & compression<br>T1=stud & rilled |
|---------------------------------|------------------------------------|--|---|--|---|--|--|

### Outline Drawing

\* Construction code is also a sequence number, e.g., A1, A2,---,A9, B1,B2,---, for customer specifications. Sequence number 1 in A1, R1, S1 and T1 denotes the standard catalog capacitor with no special requirements.



### Stud Dimensions

| Case  | Stud   | P ± 0.039"    |
|-------|--------|---------------|
| Diam. | Thread | (±1.0 mm)     |
| 1.375 | M8     | 0.470" (12.0) |
| 1.750 | M8     | 0.470" (12.0) |
| 2.000 | M12    | 0.630" (16.0) |
| 2.500 | M12    | 0.630" (16.0) |
| 3.000 | M12    | 0.630" (16.0) |

### Can Dimensions Insulation Adders

|            | Diameter (D) |      | Length (L) |      | Standing Height (H) |      |
|------------|--------------|------|------------|------|---------------------|------|
|            | (in)         | (mm) | (in)       | (mm) | (in)                | (mm) |
| 0.008" PVC | 0.02         | 0.51 | 0.032      | 0.81 | 0.024               | 0.61 |

### Terminal Dimensions

| Terminal Style     | For Case Diameters | Code | Post Diameter |      | H max |     | Thread | min Full Thread |      | Torque |      |
|--------------------|--------------------|------|---------------|------|-------|-----|--------|-----------------|------|--------|------|
|                    |                    |      | in            | mm   | in    | mm  |        | in              | mm   | in-lb  | N-m  |
| Low Post           | 1 3/8 to 3         | B    | 0.314         | 8.0  | 0.094 | 2.4 | 10-32  | 0.218           | 5.5  | 25     | 2.82 |
| High Post          | 1 3/8 to 3         | A    | 0.314         | 8.0  | 0.281 | 7.1 | 10-32  | 0.375           | 9.5  | 25     | 2.82 |
| High Current, Low  | 2 1/2 & 3          | D    | 0.684         | 17.4 | 0.125 | 3.2 | ¼-28   | 0.344           | 8.7  | 50     | 5.65 |
| High Current, High | 2 1/2 & 3          | K    | 0.684         | 17.4 | 0.281 | 7.1 | ¼-28   | 0.469           | 11.9 | 60     | 6.78 |
| M5 High Post       | 1 3/8 to 2         | M    | 0.314         | 8.0  | 0.281 | 7.1 | M5     | 0.375           | 9.5  | 25     | 2.82 |
| M5 Post            | 2 1/2 & 3          | F    | 0.512         | 13.0 | 0.230 | 5.8 | M5     | 0.344           | 8.7  | 25     | 2.82 |
| M6 Low Post        | 2 1/2 & 3          | J    | 0.684         | 17.4 | 0.125 | 3.2 | M6     | 0.344           | 8.7  | 50     | 5.65 |

# Type 3186 85 °C Aluminum Electrolytic, Screw Terminal

## Best Value 85 °C High Capacitance Screw Terminal Type

### Case Dimensions, Uninsulated Bare Can

| Case Code | Diam. (D) |      | Length (L) |       | Terminal Space(P) |      | Vent Plug (A) |      | Typical Weight |      | Optional Bracket Part No. |
|-----------|-----------|------|------------|-------|-------------------|------|---------------|------|----------------|------|---------------------------|
|           | ±0.031    | ±0.8 | ±0.062     | ±1.6  | ±0.014            | ±0.4 | (in)          | (mm) | (oz)           | (g)  |                           |
|           | (in)      | (mm) | (in)       | (mm)  | (in)              | (mm) |               |      |                |      |                           |
| BA        | 1.375     | 34.9 | 2.125      | 54.0  | 0.5               | 12.7 | 0.39          | 8.0  | 2.5            | 72   | 115058-06                 |
| BB        | 1.375     | 34.9 | 2.625      | 66.7  | 0.5               | 12.7 | 0.39          | 8.0  | 3.2            | 90   | 115058-06                 |
| BC        | 1.375     | 34.9 | 3.125      | 79.4  | 0.5               | 12.7 | 0.39          | 8.0  | 3.7            | 105  | 115058-06                 |
| BD        | 1.375     | 34.9 | 3.625      | 92.1  | 0.5               | 12.7 | 0.39          | 8.0  | 4.2            | 120  | 115058-06                 |
| BE        | 1.375     | 34.9 | 4.125      | 104.8 | 0.5               | 12.7 | 0.39          | 8.0  | 4.7            | 135  | 115058-06                 |
| BF        | 1.375     | 34.9 | 4.625      | 117.5 | 0.5               | 12.7 | 0.39          | 8.0  | 6.0            | 170  | 115058-06                 |
| BG        | 1.375     | 34.9 | 5.125      | 130.2 | 0.5               | 12.7 | 0.39          | 8.0  | 7.7            | 220  | 115058-06                 |
| BH        | 1.375     | 34.9 | 5.625      | 142.9 | 0.5               | 12.7 | 0.39          | 8.0  | 9.5            | 270  | 115058-06                 |
| DA        | 1.750     | 44.5 | 2.125      | 54.0  | 0.75              | 19.1 | 0.453         | 11.5 | 5.6            | 160  | 115058-15                 |
| DB        | 1.750     | 44.5 | 2.625      | 66.7  | 0.75              | 19.1 | 0.453         | 11.5 | 6.1            | 175  | 115058-15                 |
| DC        | 1.750     | 44.5 | 3.125      | 79.4  | 0.75              | 19.1 | 0.453         | 11.5 | 6.3            | 180  | 115058-15                 |
| DD        | 1.750     | 44.5 | 3.625      | 92.1  | 0.75              | 19.1 | 0.453         | 11.5 | 7.2            | 205  | 115058-15                 |
| DE        | 1.750     | 44.5 | 4.125      | 104.8 | 0.75              | 19.1 | 0.453         | 11.5 | 7.7            | 220  | 115058-15                 |
| DF        | 1.750     | 44.5 | 4.625      | 117.5 | 0.75              | 19.1 | 0.453         | 11.5 | 8.2            | 235  | 115058-15                 |
| DG        | 1.750     | 44.5 | 5.125      | 130.2 | 0.75              | 19.1 | 0.453         | 11.5 | 8.8            | 250  | 115058-15                 |
| DH        | 1.750     | 44.5 | 5.625      | 142.9 | 0.75              | 19.1 | 0.453         | 11.5 | 9.5            | 270  | 115058-15                 |
| EA        | 2.000     | 50.8 | 2.125      | 54.0  | 0.875             | 22.2 | 0.5           | 12.7 | 6.0            | 170  | 115058-09                 |
| EB        | 2.000     | 50.8 | 2.625      | 66.7  | 0.875             | 22.2 | 0.5           | 12.7 | 6.3            | 180  | 115058-09                 |
| EC        | 2.000     | 50.8 | 3.125      | 79.4  | 0.875             | 22.2 | 0.5           | 12.7 | 6.7            | 190  | 115058-09                 |
| ED        | 2.000     | 50.8 | 3.625      | 92.1  | 0.875             | 22.2 | 0.5           | 12.7 | 7.7            | 220  | 115058-09                 |
| EE        | 2.000     | 50.8 | 4.125      | 104.8 | 0.875             | 22.2 | 0.5           | 12.7 | 8.9            | 255  | 115058-09                 |
| EF        | 2.000     | 50.8 | 4.625      | 117.5 | 0.875             | 22.2 | 0.5           | 12.7 | 10.2           | 290  | 115058-09                 |
| EG        | 2.000     | 50.8 | 5.125      | 130.2 | 0.875             | 22.2 | 0.5           | 12.7 | 11.2           | 320  | 115058-09                 |
| EH        | 2.000     | 50.8 | 5.625      | 142.9 | 0.875             | 22.2 | 0.5           | 12.7 | 12.3           | 350  | 115058-09                 |
| FB        | 2.500     | 63.5 | 2.625      | 66.7  | 1.125             | 28.6 | 0.625         | 15.9 | 10.5           | 300  | 115058-14                 |
| FC        | 2.500     | 63.5 | 3.125      | 79.4  | 1.125             | 28.6 | 0.625         | 15.9 | 13.0           | 370  | 115058-14                 |
| FD        | 2.500     | 63.5 | 3.625      | 92.1  | 1.125             | 28.6 | 0.625         | 15.9 | 14.0           | 400  | 115058-14                 |
| FE        | 2.500     | 63.5 | 4.125      | 104.8 | 1.125             | 28.6 | 0.625         | 15.9 | 15.6           | 445  | 115058-14                 |
| FF        | 2.500     | 63.5 | 4.625      | 117.5 | 1.125             | 28.6 | 0.625         | 15.9 | 21.0           | 600  | 115058-14                 |
| FG        | 2.500     | 63.5 | 5.125      | 130.2 | 1.125             | 28.6 | 0.625         | 15.9 | 22.8           | 650  | 115058-14                 |
| FH        | 2.500     | 63.5 | 5.625      | 142.9 | 1.125             | 28.6 | 0.625         | 15.9 | 21.0           | 600  | 115058-14                 |
| GC        | 3.000     | 76.2 | 3.125      | 79.4  | 1.25              | 31.8 | 0.75          | 19.0 | 18.2           | 520  | 115058-11                 |
| GD        | 3.000     | 76.2 | 3.625      | 92.1  | 1.25              | 31.8 | 0.75          | 19.0 | 20.0           | 570  | 115058-11                 |
| GE        | 3.000     | 76.2 | 4.125      | 104.8 | 1.25              | 31.8 | 0.75          | 19.0 | 21.0           | 600  | 115058-11                 |
| GF        | 3.000     | 76.2 | 4.625      | 117.5 | 1.25              | 31.8 | 0.75          | 19.0 | 25.2           | 720  | 115058-11                 |
| GG        | 3.000     | 76.2 | 5.125      | 130.2 | 1.25              | 31.8 | 0.75          | 19.0 | 29.8           | 850  | 115058-11                 |
| GH        | 3.000     | 76.2 | 5.625      | 142.9 | 1.25              | 31.8 | 0.75          | 19.0 | 34.0           | 970  | 115058-11                 |
| GJ        | 3.000     | 76.2 | 5.875      | 149.2 | 1.25              | 31.8 | 0.75          | 19.0 | 36.8           | 1050 | 115058-11                 |
| GN        | 3.000     | 76.2 | 8.625      | 219.1 | 1.25              | 31.8 | 0.75          | 19.0 | 51.1           | 1460 | 115058-11                 |

# Type 3186 85 °C Aluminum Electrolytic, Screw Terminal

## Best Value 85 °C High Capacitance Screw Terminal Type

### Ratings

| Capacitance<br>(µF)              | Catalog<br>Part Number | ESR max<br>120 Hz, 25°C<br>(mΩ) | Ripple max<br>120 Hz, 85 °C<br>(A) | Case Size<br>DxL<br>(in) |
|----------------------------------|------------------------|---------------------------------|------------------------------------|--------------------------|
| <b>16 Volts (20 Volts Surge)</b> |                        |                                 |                                    |                          |
| 22000                            | 3186BA223T016APA1      | 25.0                            | 5.4                                | 1.375 X 2.125            |
| 39000                            | 3186BC393T016APA1      | 18.0                            | 7.6                                | 1.375 X 3.125            |
| 56000                            | 3186BE563T016APA1      | 14.0                            | 9.7                                | 1.375 X 4.125            |
| 82000                            | 3186EC823T016APA1      | 6.0                             | 17.0                               | 2.00 X 3.125             |
| 120000                           | 3186EE124T016APA1      | 5.0                             | 21.0                               | 2.00 X 4.125             |
| 150000                           | 3186EF154T016APA1      | 4.0                             | 23.0                               | 2.00 X 4.625             |
| 150000                           | 3186EH154T016APA1      | 4.0                             | 25.0                               | 2.00 X 5.625             |
| 220000                           | 3186FE224T016APA1      | 4.0                             | 27.0                               | 2.50 X 4.125             |
| 270000                           | 3186FF274T016APA1      | 4.0                             | 29.0                               | 2.50 X 4.625             |
| 330000                           | 3186FH334T016DPA1      | 3.0                             | 34.0                               | 2.50 X 5.625             |
| 330000                           | 3186GE334T016DPA1      | 4.0                             | 32.0                               | 3.00 X 4.125             |
| 390000                           | 3186GF394T016DPA1      | 3.0                             | 35.0                               | 3.00 X 4.625             |
| 470000                           | 3186GH474T016DPA1      | 3.0                             | 40.0                               | 3.00 X 5.625             |
| 820000                           | 3186GN824T016DPA1      | 3.0                             | 50.0                               | 3.00 X 8.625             |
| 1000000                          | 3186GN105T016DPA1      | 3.0                             | 50.0                               | 3.00 X 8.625             |
| <b>25 Volts (30 Volts Surge)</b> |                        |                                 |                                    |                          |
| 18000                            | 3186BA183T025APA1      | 25.0                            | 5.4                                | 1.375 X 2.125            |
| 27000                            | 3186BC273T025APA1      | 18.0                            | 7.5                                | 1.375 X 3.125            |
| 39000                            | 3186BE393T025APA1      | 14.0                            | 9.0                                | 1.375 X 4.125            |
| 68000                            | 3186EC683T025APA1      | 6.0                             | 17.0                               | 2.00 X 3.125             |
| 100000                           | 3186EE104T025APA1      | 5.0                             | 21.0                               | 2.00 X 4.125             |
| 120000                           | 3186EF124T025APA1      | 4.0                             | 23.0                               | 2.00 X 4.625             |
| 150000                           | 3186EH154T025APA1      | 4.0                             | 26.0                               | 2.00 X 5.625             |
| 150000                           | 3186FE154T025APA1      | 4.0                             | 27.0                               | 2.50 X 4.125             |
| 180000                           | 3186FF184T025APA1      | 4.0                             | 29.0                               | 2.50 X 4.625             |
| 220000                           | 3186FH224T025DPA1      | 3.0                             | 31.0                               | 2.50 X 5.625             |
| 220000                           | 3186GE224T025DPA1      | 4.0                             | 32.0                               | 3.00 X 4.125             |
| 270000                           | 3186GF274T025DPA1      | 3.0                             | 35.0                               | 3.00 X 4.625             |
| 330000                           | 3186GH334T025DPA1      | 3.0                             | 38.0                               | 3.00 X 5.625             |
| 560000                           | 3186GN564T025DPA1      | 3.0                             | 50.0                               | 3.00 X 8.625             |
| <b>40 Volts (50 Volts Surge)</b> |                        |                                 |                                    |                          |
| 10000                            | 3186BA103T040APA1      | 33.0                            | 4.8                                | 1.375 X 2.125            |
| 15000                            | 3186BC153T040APA1      | 19.0                            | 7.4                                | 1.375 X 3.125            |
| 22000                            | 3186BE223T040APA1      | 14.0                            | 9.4                                | 1.375 X 4.125            |
| 39000                            | 3186EC393T040APA1      | 7.0                             | 15.0                               | 2.00 X 3.125             |
| 56000                            | 3186EE563T040APA1      | 6.0                             | 19.0                               | 2.00 X 4.125             |
| 68000                            | 3186EF683T040APA1      | 5.0                             | 21.0                               | 2.00 X 4.625             |
| 82000                            | 3186EH82T040APA1       | 5.0                             | 23.0                               | 2.00 X 5.625             |
| 100000                           | 3186FE104T040APA1      | 5.0                             | 24.0                               | 2.50 X 4.125             |
| 120000                           | 3186FF124T040APA1      | 4.0                             | 27.0                               | 2.50 X 4.625             |
| 150000                           | 3186FH154T040DPA1      | 4.0                             | 31.0                               | 2.50 X 5.625             |
| 150000                           | 3186GE154T040APA1      | 4.0                             | 29.0                               | 3.00 X 4.125             |
| 180000                           | 3186GF184T040DPA1      | 4.0                             | 35.0                               | 3.00 X 4.625             |
| 220000                           | 3186GH224T040DPA1      | 3.0                             | 37.0                               | 3.00 X 5.625             |
| 330000                           | 3186GN334T040DPA1      | 3.0                             | 50.0                               | 3.00 X 8.625             |

| Capacitance<br>(µF)              | Catalog<br>Part Number | ESR max<br>120 Hz, 25°C<br>(mΩ) | Ripple max<br>120 Hz, 85 °C<br>(A) | Case Size<br>DxL<br>(in) |
|----------------------------------|------------------------|---------------------------------|------------------------------------|--------------------------|
| <b>50 Volts (63 Volts Surge)</b> |                        |                                 |                                    |                          |
| 8200                             | 3186BA822T050APA1      | 41.0                            | 4.2                                | 1.375 X 2.125            |
| 12000                            | 3186BC123T050APA1      | 28.0                            | 6.0                                | 1.375 X 3.125            |
| 18000                            | 3186BE183T050APA1      | 21.0                            | 7.8                                | 1.375 X 4.125            |
| 27000                            | 3186EC273T050APA1      | 15.0                            | 10.0                               | 2.00 X 3.125             |
| 47000                            | 3186EE473T050APA1      | 11.0                            | 13.0                               | 2.00 X 4.125             |
| 56000                            | 3186EF563T050APA1      | 10.0                            | 15.0                               | 2.00 X 4.625             |
| 68000                            | 3186EH683T050APA1      | 9.0                             | 17.0                               | 2.00 X 5.625             |
| 68000                            | 3186FE683T050APA1      | 8.0                             | 18.0                               | 2.50 X 4.125             |
| 82000                            | 3186FF823T050APA1      | 7.0                             | 20.0                               | 2.50 X 4.625             |
| 100000                           | 3186FH104T050APA1      | 6.0                             | 24.0                               | 2.50 X 5.625             |
| 100000                           | 3186GE104T050APA1      | 6.0                             | 23.0                               | 3.00 X 4.125             |
| 120000                           | 3186GF124T050APA1      | 6.0                             | 25.0                               | 3.00 X 4.625             |
| 150000                           | 3186GH154T050DPA1      | 5.0                             | 30.0                               | 3.00 X 5.625             |
| 220000                           | 3186GN224T050DPA1      | 4.0                             | 40.0                               | 3.00 X 8.625             |
| <b>63 Volts (75 Volts Surge)</b> |                        |                                 |                                    |                          |
| 4700                             | 3186BA472T063APA1      | 42.0                            | 4.2                                | 1.375 X 2.125            |
| 8200                             | 3186BC822T063APA1      | 28.0                            | 6.0                                | 1.375 X 3.125            |
| 12000                            | 3186BE123T063APA1      | 21.0                            | 8.0                                | 1.375 X 4.125            |
| 18000                            | 3186EC183T063APA1      | 15.0                            | 10.0                               | 2.00 X 3.125             |
| 27000                            | 3186EE273T063APA1      | 11.0                            | 13.0                               | 2.00 X 4.125             |
| 33000                            | 3186EF333T063APA1      | 10.0                            | 15.0                               | 2.00 X 4.625             |
| 39000                            | 3186EH393T063APA1      | 9.0                             | 16.0                               | 2.00 X 5.625             |
| 47000                            | 3186FE473T063APA1      | 8.0                             | 18.0                               | 2.50 X 4.125             |
| 56000                            | 3186FF563T063APA1      | 7.0                             | 20.0                               | 2.50 X 4.625             |
| 68000                            | 3186FH683T063APA1      | 6.0                             | 24.0                               | 2.50 X 5.625             |
| 68000                            | 3186GE683T063APA1      | 6.0                             | 23.0                               | 3.00 X 4.125             |
| 82000                            | 3186GF823T063APA1      | 6.0                             | 25.0                               | 3.00 X 4.625             |
| 100000                           | 3186GH104T063DPA1      | 5.0                             | 30.0                               | 3.00 X 5.625             |
| 150000                           | 3186GN154T063DPA1      | 4.0                             | 40.0                               | 3.00 X 8.625             |
| <b>75 Volts (95 Volts Surge)</b> |                        |                                 |                                    |                          |
| 3900                             | 3186BA392T075APA1      | 43.0                            | 4.1                                | 1.375 X 2.125            |
| 6800                             | 3186BC682T075APA1      | 29.0                            | 5.9                                | 1.375 X 3.125            |
| 10000                            | 3186BE103T075APA1      | 21.0                            | 7.8                                | 1.375 X 4.125            |
| 15000                            | 3186EC153T075APA1      | 15.0                            | 10.0                               | 2.00 X 3.125             |
| 22000                            | 3186EE223T075APA1      | 11.0                            | 13.0                               | 2.00 X 4.125             |
| 27000                            | 3186EF273T075APA1      | 10.0                            | 15.0                               | 2.00 X 4.625             |
| 33000                            | 3186EH333T075APA1      | 9.0                             | 17.0                               | 2.00 X 5.625             |
| 33000                            | 3186FE333T075APA1      | 8.0                             | 18.0                               | 2.50 X 4.125             |
| 39000                            | 3186FF393T075APA1      | 7.0                             | 20.0                               | 2.50 X 4.625             |
| 56000                            | 3186FH563T075APA1      | 6.0                             | 23.0                               | 2.50 X 5.625             |
| 47000                            | 3186GE473T075APA1      | 7.0                             | 23.0                               | 3.00 X 4.125             |
| 56000                            | 3186GF563T075APA1      | 6.0                             | 25.0                               | 3.00 X 4.625             |
| 82000                            | 3186GH823T075APA1      | 5.0                             | 29.0                               | 3.00 X 5.625             |
| 120000                           | 3186GN124T075DPA1      | 4.0                             | 40.0                               | 3.00 X 8.625             |

# Type 3186 85 °C Aluminum Electrolytic, Screw Terminal

## Best Value 85 °C High Capacitance Screw Terminal Type

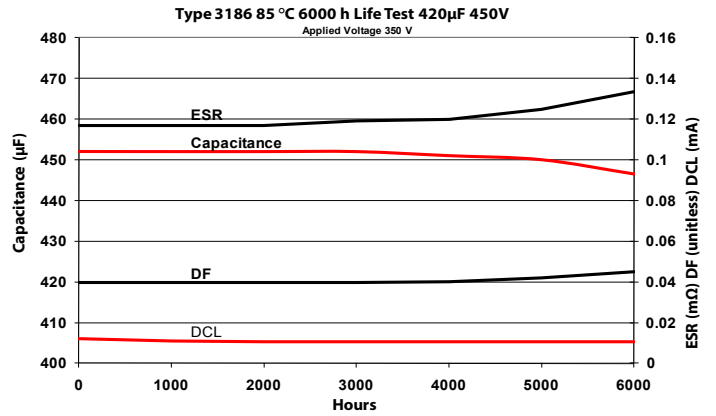
| Capacitance (µF)                   | Catalog Part Number | ESR max 120 Hz, 25°C (mΩ) | Ripple max 120 Hz, 85 °C (A) | Case Size DxL (in) |
|------------------------------------|---------------------|---------------------------|------------------------------|--------------------|
| <b>100 Volts (125 Volts Surge)</b> |                     |                           |                              |                    |
| 2700                               | 3186BA272T100APA1   | 65.0                      | 3.3                          | 1.375 X 2.125      |
| 3900                               | 3186BC392T100APA1   | 50.0                      | 4.3                          | 1.375 X 3.125      |
| 5600                               | 3186BE562T100APA1   | 32.0                      | 5.9                          | 1.375 X 4.125      |
| 10000                              | 3186EC103T100APA1   | 52.0                      | 5.5                          | 2.00 X 3.125       |
| 15000                              | 3186EE153T100APA1   | 37.0                      | 7.3                          | 2.00 X 4.125       |
| 18000                              | 3186EF183T100APA1   | 27.0                      | 9.0                          | 2.00 X 4.625       |
| 22000                              | 3186EH223T100APA1   | 11.0                      | 15.0                         | 2.00 X 5.625       |
| 22000                              | 3186FE223T100APA1   | 19.0                      | 11.0                         | 2.50 X 4.125       |
| 27000                              | 3186FF273T100APA1   | 16.0                      | 13.0                         | 2.50 X 4.625       |
| 33000                              | 3186FH333T100APA1   | 14.0                      | 14.0                         | 2.50 X 5.625       |
| 33000                              | 3186GE333T100APA1   | 14.0                      | 14.0                         | 3.00 X 4.125       |
| 39000                              | 3186GF393T100APA1   | 11.0                      | 17.0                         | 3.00 X 4.625       |
| 56000                              | 3186GH563T100DPA1   | 8.0                       | 22.0                         | 3.00 X 5.625       |
| 82000                              | 3186GN823T100DPA1   | 7.0                       | 25.0                         | 3.00 X 8.625       |
| <b>200 Volts (250 Volts Surge)</b> |                     |                           |                              |                    |
| 1000                               | 3186BA102T200APA1   | 109.0                     | 2.6                          | 1.375 X 2.125      |
| 1500                               | 3186BC152T200APA1   | 77.0                      | 3.4                          | 1.375 X 3.125      |
| 2200                               | 3186BE222T200APA1   | 52.0                      | 4.6                          | 1.375 X 4.125      |
| 3900                               | 3186EC392T200APA1   | 73.0                      | 4.8                          | 2.00 X 3.125       |
| 5600                               | 3186EE562T200APA1   | 24.0                      | 8.6                          | 2.00 X 4.125       |
| 6800                               | 3186EF682T200APA1   | 21.0                      | 9.9                          | 2.00 X 4.625       |
| 8200                               | 3186EH822T200APA1   | 17.0                      | 12.0                         | 2.00 X 5.625       |
| 10000                              | 3186FE103T200APA1   | 22.0                      | 11.0                         | 2.50 X 4.125       |
| 12000                              | 3186FF123T200APA1   | 17.0                      | 12.0                         | 2.50 X 4.625       |
| 15000                              | 3186FH153T200APA1   | 16.0                      | 14.0                         | 2.50 X 5.625       |
| 12000                              | 3186GE123T200APA1   | 26.0                      | 11.0                         | 3.00 X 4.125       |
| 15000                              | 3186GF153T200APA1   | 23.0                      | 12.0                         | 3.00 X 4.625       |
| 22000                              | 3186GH223T200APA1   | 17.0                      | 15.0                         | 3.00 X 5.625       |
| 33000                              | 3186GN333T200APA1   | 15.0                      | 17.0                         | 3.00 X 8.625       |
| <b>250 Volts (300 Volts Surge)</b> |                     |                           |                              |                    |
| 680                                | 3186BA681T250APA1   | 120.0                     | 2.6                          | 1.375 X 2.125      |
| 1200                               | 3186BC122T250APA1   | 76.0                      | 2.6                          | 1.375 X 3.125      |
| 1800                               | 3186BE182T250APA1   | 53.0                      | 4.9                          | 1.375 X 4.125      |
| 2700                               | 3186EC272T250APA1   | 67.0                      | 4.4                          | 2.00 X 3.125       |
| 3900                               | 3186EE392T250APA1   | 27.0                      | 7.9                          | 2.00 X 4.125       |
| 4700                               | 3186EF472T250APA1   | 23.0                      | 9.0                          | 2.00 X 4.625       |
| 5600                               | 3186EH562T250APA1   | 20.0                      | 10.0                         | 2.00 X 5.625       |
| 6800                               | 3186FE682T250APA1   | 24.0                      | 10.0                         | 2.50 X 4.125       |
| 8200                               | 3186FF822T250APA1   | 19.0                      | 11.0                         | 2.50 X 4.625       |
| 10000                              | 3186FH103T250APA1   | 17.0                      | 14.0                         | 2.50 X 5.625       |
| 10000                              | 3186GE103T250APA1   | 25.0                      | 11.0                         | 3.00 X 4.125       |
| 12000                              | 3186GF123T250APA1   | 22.0                      | 12.0                         | 3.00 X 4.625       |
| 15000                              | 3186GH153T250APA1   | 19.0                      | 14.0                         | 3.00 X 5.625       |
| 22000                              | 3186GN223T250APA1   | 16.0                      | 17.0                         | 3.00 X 8.625       |
| <b>350 Volts (400 Volts Surge)</b> |                     |                           |                              |                    |
| 390                                | 3186BA391T350APA1   | 270.0                     | 1.3                          | 1.375 X 2.125      |
| 680                                | 3186BC681T350APA1   | 163.0                     | 2.5                          | 1.375 X 3.125      |

| Capacitance (µF)                   | Catalog Part Number | ESR max 120 Hz, 25°C (mΩ) | Ripple max 120 Hz, 85 °C (A) | Case Size DxL (in) |
|------------------------------------|---------------------|---------------------------|------------------------------|--------------------|
| 1000                               | 3186BE102T350APA1   | 112.0                     | 3.3                          | 1.375 X 4.125      |
| 1500                               | 3186EC152T350APA1   | 105.0                     | 3.9                          | 2.00 X 3.125       |
| 2200                               | 3186EE222T350APA1   | 55.0                      | 5.6                          | 2.00 X 4.125       |
| 2700                               | 3186EF272T350APA1   | 44.0                      | 7.0                          | 2.00 X 4.625       |
| 3300                               | 3186EH332T350APA1   | 37.0                      | 8.0                          | 2.00 X 5.625       |
| 2700                               | 3186FE272T350APA1   | 54.0                      | 6.6                          | 2.50 X 4.125       |
| 3900                               | 3186FF392T350APA1   | 37.0                      | 8.7                          | 2.50 X 4.625       |
| 4700                               | 3186FH472T350APA1   | 33.0                      | 9.6                          | 2.50 X 5.625       |
| 4700                               | 3186GE472T350APA1   | 33.0                      | 9.6                          | 3.00 X 4.125       |
| 5600                               | 3186GF562T350APA1   | 33.0                      | 10.0                         | 3.00 X 4.625       |
| 6800                               | 3186GH682T350APA1   | 28.0                      | 11.0                         | 3.00 X 5.625       |
| 12000                              | 3186GN123T350APA1   | 18.0                      | 18.0                         | 3.00 X 8.625       |
| <b>400 Volts (450 Volts Surge)</b> |                     |                           |                              |                    |
| 330                                | 3186BA331T400APA1   | 290.0                     | 1.3                          | 1.375 X 2.125      |
| 560                                | 3186BC561T400APA1   | 190.0                     | 2.1                          | 1.375 X 3.125      |
| 820                                | 3186BE821T400APA1   | 129.0                     | 3.0                          | 1.375 X 4.125      |
| 1200                               | 3186EC122T400APA1   | 95.0                      | 3.7                          | 2.00 X 3.125       |
| 1800                               | 3186EE182T400APA1   | 59.0                      | 5.5                          | 2.00 X 4.125       |
| 2200                               | 3186EF222T400APA1   | 50.0                      | 6.4                          | 2.00 X 4.625       |
| 2700                               | 3186EH272T400APA1   | 39.0                      | 7.9                          | 2.00 X 5.625       |
| 2700                               | 3186FE272T400APA1   | 48.0                      | 7.3                          | 2.50 X 4.125       |
| 3300                               | 3186FF332T400APA1   | 39.0                      | 8.5                          | 2.50 X 4.625       |
| 3900                               | 3186FH392T400APA1   | 37.0                      | 9.4                          | 2.50 X 5.625       |
| 3900                               | 3186GE392T400APA1   | 37.0                      | 9.4                          | 3.00 X 4.125       |
| 4700                               | 3186GF472T400APA1   | 34.0                      | 10.0                         | 3.00 X 4.625       |
| 5600                               | 3186GH562T400APA1   | 28.0                      | 11.0                         | 3.00 X 5.625       |
| 10000                              | 3186GN103T400APA1   | 18.0                      | 18.0                         | 3.00 X 8.625       |
| <b>450 Volts (525 Volts Surge)</b> |                     |                           |                              |                    |
| 220                                | 3186BA221T450APA1   | 430.0                     | 1.0                          | 1.375 X 2.125      |
| 390                                | 3186BC391T450APA1   | 310.0                     | 1.8                          | 1.375 X 3.125      |
| 560                                | 3186BE561T450APA1   | 180.0                     | 2.6                          | 1.375 X 4.125      |
| 820                                | 3186EC821T450APA1   | 145.0                     | 3.0                          | 2.00 X 3.125       |
| 1200                               | 3186EE122T450APA1   | 85.0                      | 4.6                          | 2.00 X 4.125       |
| 1500                               | 3186EF152T450APA1   | 71.0                      | 5.3                          | 2.00 X 4.625       |
| 1800                               | 3186EH182T450APA1   | 60.0                      | 5.9                          | 2.00 X 5.625       |
| 2200                               | 3186FE222T450APA1   | 53.0                      | 6.7                          | 2.50 X 4.125       |
| 2700                               | 3186FF272T450APA1   | 45.0                      | 7.7                          | 2.50 X 4.625       |
| 3300                               | 3186FH332T450APA1   | 35.0                      | 9.5                          | 2.50 X 5.625       |
| 3300                               | 3186GE332T450APA1   | 35.0                      | 9.5                          | 3.00 X 4.125       |
| 3900                               | 3186GF392T450APA1   | 36.0                      | 9.8                          | 3.00 X 4.625       |
| 4700                               | 3186GH472T450APA1   | 31.0                      | 11.0                         | 3.00 X 5.625       |
| 8200                               | 3186GN822T450APA1   | 23.0                      | 14.0                         | 3.00 X 8.625       |
| <b>500 Volts (550 Volts Surge)</b> |                     |                           |                              |                    |
| 820                                | 3186EE821T500APA1   | 132.0                     | 3.4                          | 2.00 X 4.125       |
| 1200                               | 3186EG122T500APA1   | 90.0                      | 4.6                          | 2.00 X 5.125       |
| 2200                               | 3186FG222T500APA1   | 59.0                      | 6.6                          | 2.50 X 5.125       |
| 3300                               | 3186GH332T500APA1   | 43.0                      | 8.6                          | 3.00 X 5.625       |

# Type 3186 85 °C Aluminum Electrolytic, Screw Terminal

## Best Value 85 °C High Capacitance Screw Terminal Type

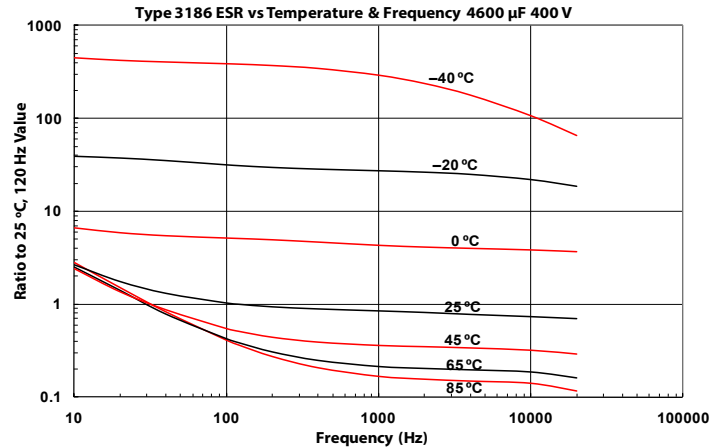
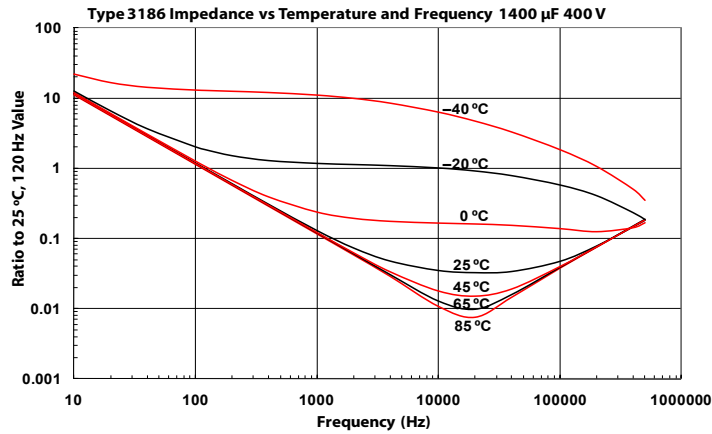
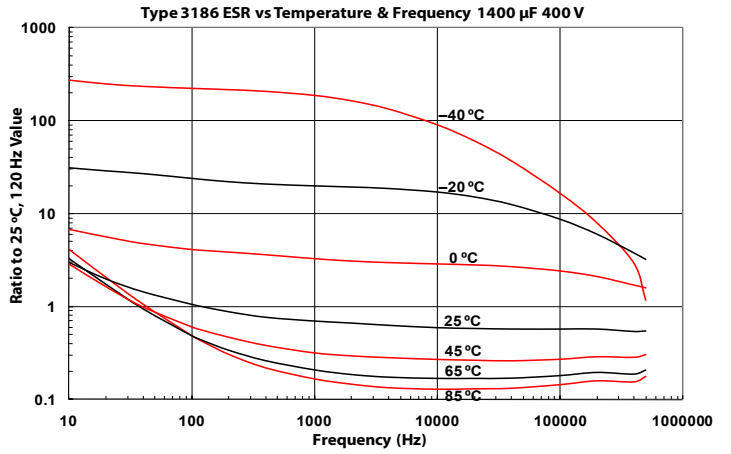
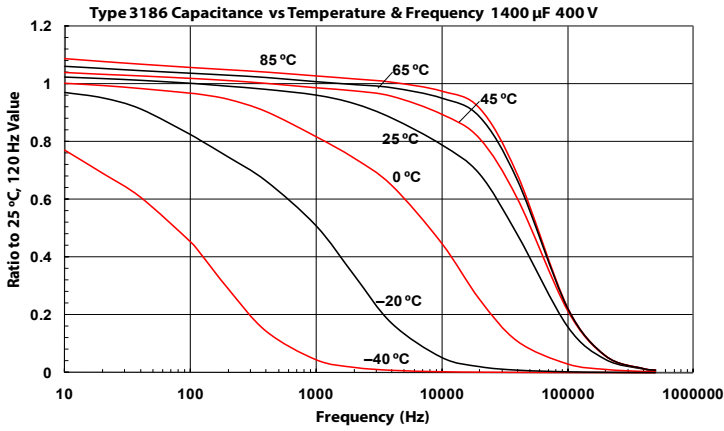
### Typical Performance Curves



# Type 3186 85 °C Aluminum Electrolytic, Screw Terminal

## Best Value 85 °C High Capacitance Screw Terminal Type

### Typical Performance Curves



**Notice and Disclaimer:** All product drawings, descriptions, specifications, statements, information and data (collectively, the "Information") in this datasheet or other publication are subject to change. The customer is responsible for checking, confirming and verifying the extent to which the Information contained in this datasheet or other publication is applicable to an order at the time the order is placed. All Information given herein is believed to be accurate and reliable, but it is presented without any guarantee, warranty, representation or responsibility of any kind, expressed or implied. Statements of suitability for certain applications are based on the knowledge that the Cornell Dubilier company providing such statements ("Cornell Dubilier") has of operating conditions that such Cornell Dubilier company regards as typical for such applications, but are not intended to constitute any guarantee, warranty or representation regarding any such matter – and Cornell Dubilier specifically and expressly disclaims any guarantee, warranty or representation concerning the suitability for a specific customer application, use, storage, transportation, or operating environment. The Information is intended for use only by customers who have the requisite experience and capability to determine the correct products for their application. Any technical advice inferred from this Information or otherwise provided by Cornell Dubilier with reference to the use of any Cornell Dubilier products is given gratis (unless otherwise specified by Cornell Dubilier), and Cornell Dubilier assumes no obligation or liability for the advice given or results obtained. Although Cornell Dubilier strives to apply the most stringent quality and safety standards regarding the design and manufacturing of its products, in light of the current state of the art, isolated component failures may still occur. Accordingly, customer applications which require a high degree of reliability or safety should employ suitable designs or other safeguards (such as installation of protective circuitry or redundancies or other appropriate protective measures) in order to ensure that the failure of an electrical component does not result in a risk of personal injury or property damage. Although all product-related warnings, cautions and notes must be observed, the customer should not assume that all safety measures are indicated in such warnings, cautions and notes, or that other safety measures may not be required.