

Type CGS Computer Grade Capacitors



- High CV Product
- Screw Terminals
- Suitable for use in most demanding applications requiring high current filtering or energy storage
- Custom Designs Available Upon Request

GENERAL SPECIFICATIONS

Operating Temperature:
-40°C to +85°C

Voltage Range:
6.3 WVDC to 500 WVDC

Capacitance Range:
75μF to 1,500,000μF

Capacitance Tolerance:
-10% +75% (6.3-150 WVDC)
-10% +50% (200-450 WVDC)

DC Leakage Current:
I = .006 √CV after 30 minutes
Not to exceed 6mA
C = Capacitance in μF
V = Rated Voltage
I = Leakage Current in mA

QA Stability Test:
Apply WVDC for 1,000 hrs at 85°C

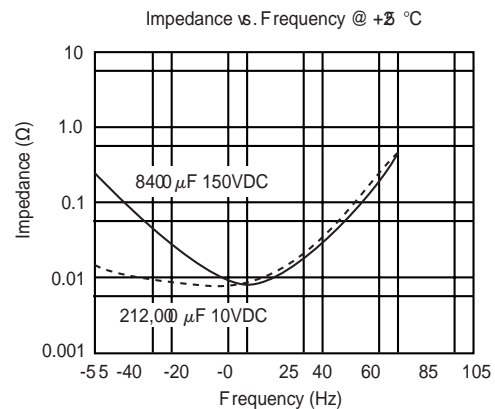
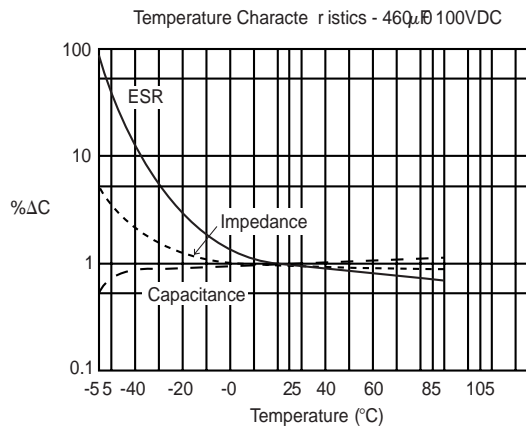
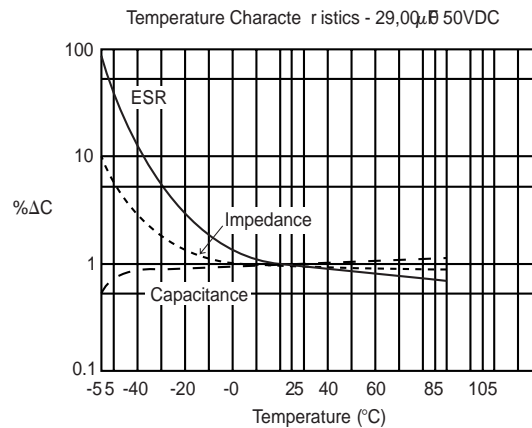
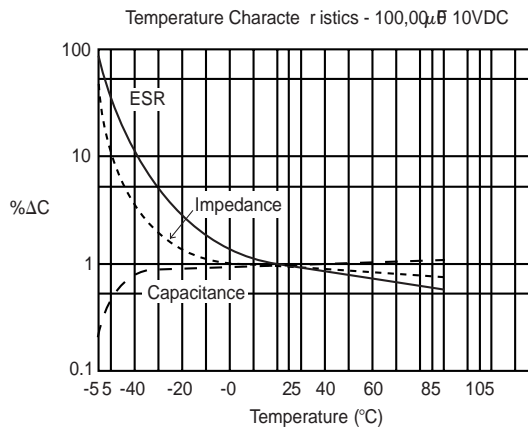
- Capacitance change ≤10% from initial limits
- DC leakage current meets initial limits
- ESR ≤ 175% of initial measured value

The maximum ripple current at 85°C and 120 Hz for CGS capacitors is shown in the Standard Rating Table. Maximum ripple current may be adjusted by the multipliers in the following tables:

| Rated WVDC | Ripple Multipliers | | | | |
|------------|--------------------|--------|--------|--------|---------|
| | 60 Hz | 120 Hz | 400 Hz | 1000Hz | 2500KHz |
| 3 to 50 | 0.8 | 1.0 | 1.05 | 1.10 | 1.14 |
| 51 to 150 | 0.8 | 1.0 | 1.08 | 1.13 | 1.16 |
| 151 & Up | 0.8 | 1.0 | 1.15 | 1.21 | 1.25 |

| Ambient Temperature | Ripple Multiplier |
|---------------------|-------------------|
| +85°C | 1.00 |
| +75°C | 1.4 |
| +65°C | 1.7 |
| +55°C | 2.0 |
| +45°C | 2.2 |

Typical Performance



Type CGS Computer Grade Capacitors



| Cap µF | Max ESR (ohms) @ 120Hz | Max Ripple RMS Amps @ 120Hz +85°C | Dia | Length | Catalog Number |
|-----------|---------------------------------|---|-----|--------|-------------------|
|-----------|---------------------------------|---|-----|--------|-------------------|

| 400 WVDC; 450 VDC Surge | | | | | |
|-------------------------|-------|------|-------|-------|---------------|
| 1,700 | 0.060 | 5.7 | 2.000 | 4.125 | CGS172T400V4C |
| 2,600 | 0.040 | 7.8 | 2.000 | 5.625 | CGS262T400V5L |
| 2,800 | 0.042 | 7.8 | 2.500 | 4.125 | CGS282T400W4C |
| 4,200 | 0.035 | 9.6 | 3.000 | 4.125 | CGS422T400W5L |
| 4,300 | 0.028 | 10.8 | 2.500 | 5.625 | CGS432T400W5L |
| 5,700 | 0.026 | 11.9 | 3.000 | 5.125 | CGS572T400X5C |
| 6,400 | 0.024 | 13.0 | 3.000 | 5.625 | CGS642T400X5L |
| 7,000 | 0.022 | 13.5 | 3.000 | 5.875 | CGS702T400X5R |
| 11,000 | 0.015 | 19.8 | 3.000 | 8.265 | CGS113T400X8L |

| 450 WVDC; 525 VDC Surge | | | | | |
|-------------------------|--|--|--|--|--|
|-------------------------|--|--|--|--|--|

| | | | | | |
|-------|-------|------|-------|-------|---------------|
| 75 | 0.835 | 0.9 | 1.375 | 2.125 | CGS750T450R2C |
| 100 | 0.737 | 1.0 | 1.375 | 2.125 | CGS101T450R2C |
| 140 | 0.496 | 1.4 | 1.375 | 3.125 | CGS141T450R3C |
| 170 | 0.456 | 1.5 | 1.375 | 3.125 | CGS171T450R3C |
| 210 | 0.332 | 1.9 | 1.375 | 4.125 | CGS211T450R4C |
| 240 | 0.416 | 1.3 | 1.375 | 2.125 | CGS241T450R2C |
| 250 | 0.308 | 2.0 | 1.375 | 4.125 | CGS251T450R4C |
| 320 | 0.253 | 2.5 | 2.000 | 3.125 | CGS321T450V3C |
| 350 | 0.288 | 1.7 | 1.375 | 2.625 | CGS351T450R2L |
| 350 | 0.226 | 3.2 | 1.375 | 5.125 | CGS351T450R5C |
| 400 | 0.198 | 2.9 | 1.375 | 5.625 | CGS401T450R5L |
| 450 | 0.188 | 2.9 | 2.000 | 3.125 | CGS451T450V3C |
| 460 | 0.221 | 2.1 | 1.375 | 3.125 | CGS461T450R3C |
| 480 | 0.171 | 3.4 | 2.000 | 4.125 | CGS481T450V4C |
| 620 | 0.201 | 2.6 | 2.000 | 2.625 | CGS621T450V2L |
| 650 | 0.154 | 3.7 | 2.000 | 4.125 | CGS651T450V4C |
| 680 | 0.151 | 2.9 | 1.375 | 4.125 | CGS681T450R4C |
| 800 | 0.108 | 4.4 | 2.000 | 4.625 | CGS801T450V4L |
| 930 | 0.116 | 3.7 | 2.000 | 3.125 | CGS931T450V3C |
| 970 | 0.096 | 4.5 | 2.000 | 4.125 | CGS971T450V4C |
| 1,000 | 0.103 | 4.0 | 1.375 | 5.625 | CGS102T450R5L |
| 1,000 | 0.100 | 4.1 | 2.000 | 3.625 | CGS102T450V3L |
| 1,000 | 0.082 | 5.5 | 2.500 | 4.125 | CGS102T450W4C |
| 1,100 | 0.094 | 4.1 | 1.750 | 4.125 | CGS112T450U4C |
| 1,100 | 0.076 | 6.5 | 3.000 | 4.125 | CGS112T450X4C |
| 1,400 | 0.076 | 5.0 | 2.000 | 4.125 | CGS142T450V4C |
| 1,400 | 0.069 | 5.5 | 2.000 | 4.625 | CGS142T450V4L |
| 1,400 | 0.059 | 6.5 | 2.000 | 5.625 | CGS142T450V5L |
| 1,400 | 0.060 | 7.1 | 2.500 | 5.125 | CGS142T450W5C |
| 1,500 | 0.059 | 7.4 | 3.000 | 4.125 | CGS152T450X4C |
| 1,500 | 0.057 | 8.1 | 3.000 | 5.125 | CGS152T450X5C |
| 1,700 | 0.063 | 6.0 | 2.500 | 3.625 | CGS172T450W3L |
| 1,800 | 0.054 | 5.4 | 2.000 | 5.625 | CGS182T450V5L |
| 1,800 | 0.048 | 9.3 | 3.000 | 5.875 | CGS182T450X5R |
| 1,900 | 0.052 | 7.6 | 3.000 | 5.625 | CGS192T450X5L |
| 2,000 | 0.045 | 9.1 | 3.000 | 5.125 | CGS202T450X5C |
| 2,200 | 0.051 | 6.9 | 2.000 | 5.625 | CGS222T450V5L |
| 2,200 | 0.045 | 8.4 | 3.000 | 4.125 | CGS222T450X4C |
| 2,300 | 0.052 | 7.0 | 2.500 | 4.125 | CGS232T450W4C |
| 2,400 | 0.048 | 7.2 | 2.500 | 4.125 | CGS242T450W4C |
| 2,400 | 0.055 | 7.1 | 2.500 | 4.625 | CGS242T450W4L |
| 2,400 | 0.038 | 10.3 | 3.000 | 5.625 | CGS242T450X5L |
| 2,500 | 0.058 | 7.0 | 3.000 | 3.625 | CGS252T450X3L |
| 3,100 | 0.043 | 7.2 | 2.500 | 5.625 | CGS312T450W5L |
| 3,300 | 0.031 | 11.4 | 3.000 | 5.625 | CGS332T450X5L |
| 3,500 | 0.042 | 8.8 | 3.000 | 4.125 | CGS352T450W5L |
| 3,600 | 0.035 | 9.7 | 2.500 | 5.625 | CGS362T450W5L |
| 3,600 | 0.041 | 9.2 | 3.000 | 4.625 | CGS362T450X4L |
| 4,600 | 0.032 | 9.6 | 3.000 | 5.625 | CGS462T450X5L |
| 4,700 | 0.031 | 10.9 | 3.000 | 5.125 | CGS472T450X5C |
| 5,300 | 0.028 | 12.0 | 3.000 | 5.625 | CGS532T450X5L |
| 5,800 | 0.026 | 12.4 | 3.000 | 5.875 | CGS582T450X5R |
| 7,700 | 0.020 | 16.7 | 3.000 | 8.625 | CGS772T450X8L |
| 9,000 | 0.017 | 18.2 | 3.000 | 8.625 | CGS902T450X8L |

| Cap µF | Max ESR (ohms) @ 120Hz | Max Ripple RMS Amps @ 120Hz +85°C | Dia | Length | Catalog Number |
|-----------|---------------------------------|---|-----|--------|-------------------|
|-----------|---------------------------------|---|-----|--------|-------------------|

| 500 WVDC; 550 VDC Surge | | | | | |
|-------------------------|------|------|-------|-------|---------------|
| 160 | .610 | 1.1 | 1.375 | 2.125 | CGS161T500R2C |
| 240 | .422 | 1.4 | 1.375 | 2.625 | CGS241T500R2L |
| 240 | .416 | 1.6 | 1.750 | 2.125 | CGS241T500U2C |
| 310 | .323 | 1.8 | 1.375 | 3.125 | CGS311T500R3C |
| 310 | .322 | 2.0 | 2.000 | 2.125 | CGS311T500V2C |
| 361 | .282 | 2.1 | 1.750 | 2.625 | CGS361T500U2L |
| 380 | .262 | 2.1 | 1.375 | 3.625 | CGS381T500R3L |
| 450 | .220 | 2.4 | 1.375 | 4.125 | CGS451T500R4C |
| 460 | .225 | 2.6 | 2.000 | 2.625 | CGS461T500V2L |
| 530 | .190 | 2.7 | 1.375 | 4.625 | CGS531T500R4L |
| 600 | .167 | 3.0 | 1.375 | 5.125 | CGS601T500R5C |
| 620 | .164 | 3.2 | 1.750 | 3.625 | CGS621T500U3L |
| 620 | .165 | 3.2 | 2.000 | 3.125 | CGS621T500V3C |
| 670 | .150 | 3.5 | 1.375 | 5.625 | CGS671T500R5L |
| 750 | .136 | 3.6 | 1.750 | 4.125 | CGS751T500U4C |
| 790 | .131 | 3.8 | 2.000 | 3.625 | CGS791T500V3L |
| 880 | .116 | 4.1 | 1.750 | 4.625 | CGS881T500U4L |
| 950 | .108 | 4.4 | 2.000 | 4.125 | CGS951T500V4C |
| 1000 | .101 | 4.6 | 1.750 | 5.125 | CGS102T500U5C |
| 1000 | .101 | 4.7 | 2.500 | 3.125 | CGS102T500W3C |
| 1100 | .089 | 5.1 | 1.750 | 5.625 | CGS112T500U5L |
| 1100 | .092 | 5.0 | 2.000 | 4.625 | CGS112T500V4L |
| 1300 | .081 | 5.6 | 2.000 | 5.125 | CGS132T500V5C |
| 1300 | .080 | 5.6 | 2.500 | 3.625 | CGS132T500W3L |
| 1500 | .072 | 6.1 | 2.000 | 5.625 | CGS152T500V5L |
| 1600 | .066 | 6.5 | 2.500 | 4.125 | CGS162T500W4C |
| 1800 | .057 | 7.3 | 2.500 | 4.625 | CGS182T500W4L |
| 1900 | .057 | 7.5 | 3.000 | 3.625 | CGS192T500X3L |
| 2100 | .049 | 8.2 | 2.500 | 5.125 | CGS212T500W5C |
| 2300 | .047 | 8.7 | 3.000 | 4.125 | CGS232T500X4C |
| 2400 | .044 | 9.0 | 2.500 | 5.625 | CGS242T500W5L |
| 2700 | .041 | 9.8 | 3.500 | 3.625 | CGS272T500Y3L |
| 2800 | .040 | 9.8 | 3.000 | 4.625 | CGS282T500X4L |
| 3200 | .035 | 20.3 | 3.000 | 5.125 | CGS322T500X5C |
| 3300 | .034 | 11.2 | 3.500 | 4.125 | CGS332T500Y4C |
| 3500 | .030 | 12.1 | 3.000 | 5.625 | CGS352T500X5L |
| 4400 | .025 | 14.1 | 3.500 | 5.125 | CGS442T500Y5C |
| 4800 | .023 | 15.2 | 3.500 | 5.625 | CGS482T500Y5L |
| 6000 | .018 | 18.7 | 3.000 | 8.625 | CGS602T500X8L |
| 8300 | .014 | 23.1 | 3.500 | 8.625 | CGS832T500Y8L |

Aluminum Capacitors