

Type CGR 105 °C High Temp Screw Terminal Aluminum Electrolytic

105 °C, Screw Terminal Capacitors



Type CGR screw terminal, aluminum electrolytic capacitors have excellent reliability and are good for 2000 hours at 105 °C at full rated voltage.

Highlights

- High reliability - 2000 hours at 105 °C
- Screw Terminal
- Commercial Equivalent of MIL-C-350 18/04, 06, 10
- RoHS Compliant

Specifications

| | |
|------------------------------------|--|
| Capacitance Range: | 330 to 100,000 µF |
| Voltage Range: | 7.5 to 200 WVdc |
| Capacitance Tolerance: | -10% +75% (7.5 - 50 WVdc) -10% +50% (51 - 200 WVdc) |
| Operating Temperature: | -40 °C to +105 °C |
| Ripple Current Multipliers: | Ambient Temperature |

| 25 °C | 35 °C | 45 °C | 55 °C | 65 °C | 85 °C |
|-------|-------|-------|-------|-------|-------|
| 2.00 | 1.88 | 1.72 | 1.58 | 1.42 | 1.00 |

| Rated Voltage | Frequency / Ripple Multiplier | | | | |
|---------------|-------------------------------|--------|---------|---------|--------|
| | 120 Hz | 400 Hz | 1000 Hz | 2500 Hz | 10 kHz |
| 10 to 75 | 1.000 | 1.050 | 1.085 | 1.135 | 1.150 |
| 76 to 250 | 1.000 | 1.075 | 1.125 | 1.155 | 1.210 |

DC Leakage Current: $I \leq 6\sqrt{CV}$ after 5 minutes
Not to exceed 4.0 mA
C = Capacitance in µF
V = Rated Voltage
I = Leakage current in µA

[Click here to see: Hardware & Mounting Options](#)

QA Stability Test: Apply WVdc for 2000 h @ 105 °C

- Capacitance change ±15% from initial limits
- DC leakage current meets initial limits
- ESR: ≤175% of initial measured value

[Click here to see: Mechanical Details](#)

Ratings

| Cap (µF) | Catalog Part Number | Typical | | Dia. (Inches) | Length (Inches) |
|----------------------------------|------------------------|------------|---|------------------|--------------------|
| | | ESR (Ω) | Max Ripple 120 Hz +85 °C (A) RMS | | |
| 7.5 WVdc (12 Vdc Surge) | | | | | |
| 34,000 | CGR343U7R5U3C | 0.0128 | 14.4 | 1.75 | 3.125 |
| 47,000 | CGR473U7R5V3C | 0.0098 | 17.8 | 2.00 | 3.125 |
| 66,000 | CGR663U7R5V4C | 0.0068 | 23.8 | 2.00 | 4.125 |
| 10 WVdc (12 Vdc Surge) | | | | | |
| 24,000 | CGR243U010R3C | 0.011 | 9.5 | 1.375 | 3.125 |

| Cap (µF) | Catalog Part Number | Typical | | Dia. (Inches) | Length (Inches) |
|---------------------------------|------------------------|------------|---|------------------|--------------------|
| | | ESR (Ω) | Max Ripple 120 Hz +85 °C (A) RMS | | |
| 12 WVdc (15 Vdc Surge) | | | | | |
| 12,000 | CGR123U012R2L | 0.0154 | 10.6 | 1.375 | 2.625 |
| 100,000 | CGR104U012W5C | 0.0043 | 30.0 | 2.500 | 5.125 |
| 16 WVdc (15 Vdc Surge) | | | | | |
| 7,700 | CGR772U016R2C | 0.0231 | 7.9 | 1.375 | 2.125 |
| 11,000 | CGR113U016R2L | 0.0161 | 10.3 | 1.375 | 2.625 |

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Ratings

| Cap (μ F) | Catalog Part Number | Typical | Max Ripple | Dia. (Inches) | Length (Inches) |
|---------------------------------|------------------------|-------------------------------|-----------------------------|------------------|--------------------|
| | | ESR 120 Hz (Ω) | 120 Hz +85 °C (A) RMS | | |
| 16 WVdc (20 Vdc Surge) | | | | | |
| 14,000 | CGR143U016R3C | 0.0119 | 12.9 | 1.375 | 3.125 |
| 16,000 | CGR163U016U2L | 0.0173 | 11.6 | 1.750 | 2.625 |
| 20,000 | CGR203U016R4C | 0.0084 | 17.2 | 1.375 | 4.125 |
| 30,000 | CGR303U016V3C | 0.0098 | 17.8 | 2.000 | 3.125 |
| 42,000 | CGR423U016V4C | 0.0075 | 22.7 | 2.000 | 4.125 |
| 51,000 | CGR513U016W3C | 0.0085 | 22.0 | 2.500 | 3.125 |
| 20 WVdc (30 Vdc Surge) | | | | | |
| 4,600 | CGR462U020R2C | 0.022 | 8.1 | 1.375 | 2.125 |
| 10,000 | CGR103U020R3L | 0.011 | 14.6 | 1.375 | 3.625 |
| 21,000 | CGR213U020V3L | 0.009 | 19.7 | 2.000 | 3.625 |
| 30 WVdc (45 Vdc Surge) | | | | | |
| 2,200 | CGR222U030R1N | 0.035 | 5.9 | 1.375 | 1.875 |
| 4,900 | CGR492U030U2C | 0.025 | 10.3 | 1.750 | 2.125 |
| 7,400 | CGR742U030R3L | 0.011 | 14.6 | 1.375 | 3.625 |
| 10,000 | CGR103U030R4L | 0.008 | 18.9 | 1.375 | 4.625 |
| 12,000 | CGR123U030V3C | 0.010 | 17.8 | 2.000 | 3.125 |
| 15,000 | CGR153U030V3L | 0.009 | 19.7 | 2.000 | 3.625 |
| 27,000 | CGR273U030V5L | 0.005 | 30.0 | 2.000 | 5.625 |
| 30,000 | CGR303U030W4C | 0.006 | 29.1 | 2.500 | 4.125 |
| 40 WVdc (60 Vdc Surge) | | | | | |
| 2,100 | CGR212U040R2C | 0.025 | 7.7 | 1.375 | 2.125 |
| 3,900 | CGR392U040R3C | 0.013 | 12.2 | 1.375 | 3.125 |
| 5,600 | CGR562U040R4C | 0.009 | 16.6 | 1.375 | 4.125 |
| 7,400 | CGR742U040R5C | 0.010 | 12.3 | 1.375 | 5.125 |
| 9,600 | CGR962U040V3L | 0.009 | 19.7 | 2.000 | 3.625 |
| 13,000 | CGR133U040V4L | 0.007 | 25.0 | 2.000 | 4.625 |
| 22,000 | CGR223U040W4L | 0.006 | 30.0 | 2.500 | 4.625 |
| 31,000 | CGR313U040X4L | 0.005 | 30.0 | 3.000 | 4.625 |

| Cap (μ F) | Catalog Part Number | Typical | Max Ripple | Dia. (Inches) | Length (Inches) |
|-----------------------------------|------------------------|-----------------------------------|-----------------------------|------------------|--------------------|
| | | Max ESR 120 Hz (Ω) | 120 Hz +85 °C (A) RMS | | |
| 50 WVdc (75 Vdc Surge) | | | | | |
| 1,000 | CGR102U050R1N | 0.1001 | 3.5 | 1.375 | 1.875 |
| 1,500 | CGR152U050R2C | 0.0672 | 4.7 | 1.375 | 2.125 |
| 2,900 | CGR292U050R3C | 0.0357 | 7.4 | 1.375 | 3.125 |
| 4,100 | CGR412U050R4C | 0.0180 | 8.3 | 1.375 | 4.125 |
| 6,200 | CGR622U050R5L | 0.0168 | 14.0 | 1.375 | 5.625 |
| 7,600 | CGR762U050V3C | 0.0165 | 13.7 | 2.000 | 3.125 |
| 10,000 | CGR103U050V4C | 0.0113 | 18.5 | 2.000 | 4.125 |
| 16,000 | CGR163U050V5L | 0.0085 | 24.2 | 2.000 | 5.625 |
| 21,000 | CGR213U050W4L | 0.0077 | 26.8 | 2.500 | 4.625 |
| 27,000 | CGR273U050W5L | 0.0060 | 30.0 | 2.500 | 5.625 |
| 37,000 | CGR373U050X5L | 0.0051 | 30.0 | 3.000 | 5.625 |
| 75 WVdc (100 Vdc Surge) | | | | | |
| 1,200 | CGR122T075R2L | 0.0497 | 5.9 | 1.375 | 2.625 |
| 1,800 | CGR182T075R3L | 0.0329 | 8.2 | 1.375 | 3.625 |
| 2,000 | CGR202U075R3C | 0.0220 | 6.7 | 1.375 | 3.125 |
| 2,200 | CGR222T075R4C | 0.0200 | 7.9 | 1.375 | 4.125 |
| 3,100 | CGR312T075V2L | 0.0350 | 11.0 | 2.000 | 2.625 |
| 4,100 | CGR412T075U4C | 0.0140 | 10.9 | 1.750 | 4.125 |
| 4,700 | CGR472T075V3L | 0.0150 | 15.2 | 2.000 | 3.625 |
| 7,500 | CGR752U075V5L | 0.0095 | 16.2 | 2.000 | 5.625 |
| 8,000 | CGR802T075W3L | 0.0085 | 16.4 | 2.500 | 3.625 |
| 9,600 | CGR962T075W4C | 0.0094 | 23.2 | 2.500 | 4.125 |
| 11,000 | CGR113T075X3L | 0.0102 | 23.8 | 3.000 | 3.625 |
| 19,000 | CGR193T075X5L | 0.0056 | 30.0 | 3.000 | 5.625 |
| 100 WVdc (135 Vdc Surge) | | | | | |
| 330 | CGR331T100R2C | 0.0940 | 2.8 | 1.375 | 2.125 |
| 2,700 | CGR272T100V4L | 0.0120 | 18.8 | 2.000 | 4.625 |
| 4,500 | CGR452T100W4L | 0.0094 | 24.3 | 2.500 | 4.625 |
| 8,000 | CGR802T100X5L | 0.0085 | 21.8 | 3.000 | 5.625 |
| 200 WVdc (250 Vdc Surge) | | | | | |
| 3,500 | CGR352T200X4C | 0.024 | 11.5 | 3 | 4.125 |
| 5,200 | CGR522T200X5L | 0.017 | 15.4 | 3 | 5.625 |

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