

GXR Series Useful of 8,000 hours at 105°C

- Conform RoHS

Features

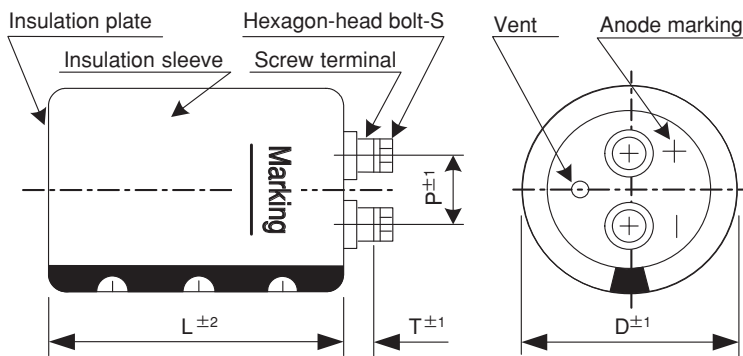
- Ripple Current increased by 37% (without wind) or 50% (with 0.5m/s wind) by new heat radiation constructions in case of ø90



Product Specifications

| Items | Specifications |
|----------------------------|---|
| Temperature range | −40°C ~ +105°C |
| Rated voltage | 350 ~ 450V.DC |
| Capacitance tolerance | ±20% (20°C, 120Hz) |
| Leakage current | 0.01CV (μA) or 5 mA, whichever is smaller or less (20°C, after 5 minutes) [C = nominal capacitance (μF), V = rated voltage (V)] |
| Dissipation factor | Less than the value specified in the standard products table. (20°C, 120Hz) |
| Permissible ripple current | As specified in the standard products table. (105°C, 120Hz) |
| Endurance | After the rated voltage with specified ripple current is applied at 105°C for 5,000 hours: Capacitance change : Within ±15% of initial value Dissipation factor : Not more than 175% of initial value specified Leakage current : Not more than initial value specified |
| Shelf life | The following specification shall be meet when the capacitor are restored to 20°C after storage of 500 hours at 105°C with no voltage applied. Before the measurement, the capacitor shall be preconditioned by applying the voltage treatment according to Item 4.1 of JIS C 5101-4. Capacitance change : Within ±15% of initial value Dissipation factor : Not more than 175% of initial value specified Leakage current : Not more than initial value specified |
| Others | JIS C 5101-4 |

Dimensions



(unit : mm)

| φ D | P | S | T | Cap material |
|-----|------|-------|-----|--------------|
| 64 | 28.6 | M5×10 | 4.5 | PPS |
| 77 | 32.0 | M6×12 | 3.0 | PPS |
| 90 | 32.0 | M6×12 | 3.0 | PPS |

Ripple current correction coefficient

| | | | | | |
|------------------------|-------|-------|------|------|-------|
| Temperature (°C) | 40 | 60 | 85 | 105 | |
| Correction coefficient | 2.44 | 2.16 | 2.00 | 1.00 | |
| Frequency (Hz) | 50/60 | 120 | 300 | 1K | ≥ 10K |
| Correction coefficient | 0.7 | 1.0 | 1.1 | 1.3 | 1.4 |
| Forced wind (m/s) | < 0.5 | 0.5 ≤ | | | |
| Correction coefficient | 1.0 | 1.1 | | | |

Terminal permissible currents: 60Arms for M5; 100Arms for M6.
Please use this type of capacitor at a terminal current below the permissible.

Product code

Product code : (Example) GXR Series 400 V 5,600μF±20%
E case (ø: 77 mm) product

| | | | | |
|----------------|----------------------|------------------|--------------------|-------------------|
| GXR | 2G | 562 | Y | (E) |
| Type of series | Type of bracket code | Capacitance code | Rated voltage code | Case dia code (*) |

(*) Case dia code in parentheses : If two types of shape exist for the same rating, enter the case dia code.

Bracket

- Refer to page 21-22 for shapes and dimensions.
- Product names in the Standard Products Table correspond to the bracket for Type Y, but Type I bracket may be used (Type of bracket Code = I).
- If bracket are not necessary, enter "N" for the type of bracket code.
- Bracket will be delivered separately.

SCREW TERMINAL TYPE ALUMINUM ELECTROLYTIC CAPACITORS

Standard Products Table

| Rated Voltage (V. DC) | Capacitance (μF) | Case size øDXL(mm) | tanδ 20°C, 120Hz | Ripple current 105°C, 120Hz (Arms) | ESR(typ.) 20°C, 100Hz (mΩ) | Z max 20°C, 10kHz (mΩ) | ESL(typ.) (nH) | Product name |
|--------------------------|---------------------|-----------------------|---------------------|--|----------------------------------|------------------------------|-------------------|--------------|
| 350 | 2,700 | 64×100 | 0.15 | 8.9 | 35 | 37 | 22 | GXR2V272Y |
| | 3,300 | 64×115 | 0.15 | 10.3 | 29 | 31 | 22 | GXR2V332Y |
| | 3,900 | 64×131 | 0.15 | 11.8 | 25 | 27 | 22 | GXR2V392Y |
| | 4,700 | 64×155 | 0.15 | 13.9 | 20 | 21 | 22 | GXR2V472YD |
| | | 77×121 | 0.15 | 15.2 | 20 | 21 | 23 | GXR2V472YE |
| | | 90×106 | 0.15 | 15.7 | 20 | 21 | 23 | GXR2V472YF |
| | 5,600 | 77×137 | 0.15 | 17.4 | 17 | 18 | 23 | GXR2V562YE |
| | | 90×121 | 0.15 | 18.2 | 17 | 18 | 23 | GXR2V562YF |
| | 6,800 | 77×161 | 0.15 | 20.5 | 14 | 15 | 23 | GXR2V682YE |
| | | 90×137 | 0.15 | 21.0 | 14 | 15 | 23 | GXR2V682YF |
| | 8,200 | 90×161 | 0.15 | 24.8 | 12 | 12 | 23 | GXR2V822Y |
| | 10,000 | 90×161 | 0.15 | 27.4 | 9 | 9 | 23 | GXR2V103Y |
| 400 | 2,200 | 64×100 | 0.15 | 8.0 | 46 | 48 | 22 | GXR2G222Y |
| | 2,700 | 64×115 | 0.15 | 9.3 | 38 | 40 | 22 | GXR2G272Y |
| | 3,300 | 64×131 | 0.15 | 10.9 | 31 | 33 | 22 | GXR2G332Y |
| | 3,900 | 64×155 | 0.15 | 12.7 | 26 | 27 | 22 | GXR2G392YD |
| | | 77×121 | 0.15 | 13.8 | 26 | 27 | 23 | GXR2G392YE |
| | | 90×106 | 0.15 | 14.3 | 26 | 27 | 23 | GXR2G392YF |
| | 4,700 | 77×137 | 0.15 | 15.9 | 21 | 22 | 23 | GXR2G472YE |
| | | 90×121 | 0.15 | 16.7 | 21 | 22 | 23 | GXR2G472YF |
| | 5,600 | 77×161 | 0.15 | 18.6 | 18 | 19 | 23 | GXR2G562YE |
| | | 90×137 | 0.15 | 19.1 | 18 | 19 | 23 | GXR2G562YF |
| | 6,800 | 90×161 | 0.15 | 22.6 | 15 | 16 | 23 | GXR2G682Y |
| | 8,200 | 90×161 | 0.15 | 24.8 | 12 | 12 | 23 | GXR2G822Y |
| | 10,000 | 90×178 | 0.15 | 28.3 | 10 | 10 | 23 | GXR2G103Y |
| 450 | 1,800 | 64×100 | 0.15 | 7.2 | 57 | 60 | 22 | GXR2W182Y |
| | 2,200 | 64×131 | 0.15 | 8.9 | 46 | 48 | 22 | GXR2W222Y |
| | 2,700 | 64×155 | 0.15 | 10.5 | 38 | 40 | 22 | GXR2W272YD |
| | | 77×121 | 0.15 | 11.5 | 38 | 40 | 23 | GXR2W272YE |
| | 3,300 | 77×137 | 0.15 | 13.4 | 31 | 23 | 23 | GXR2W332YE |
| | | 90×106 | 0.15 | 13.1 | 31 | 23 | 23 | GXR2W332YF |
| | 3,900 | 77×161 | 0.15 | 15.5 | 26 | 28 | 23 | GXR2W392YE |
| | | 90×121 | 0.15 | 15.2 | 26 | 28 | 23 | GXR2W392YF |
| | 4,700 | 77×161 | 0.15 | 17.0 | 21 | 22 | 23 | GXR2W472YE |
| | | 90×137 | 0.15 | 17.5 | 21 | 22 | 23 | GXR2W472YF |
| | 5,600 | 90×161 | 0.15 | 20.5 | 18 | 19 | 23 | GXR2W562Y |
| | 6,800 | 90×178 | 0.15 | 23.3 | 15 | 15 | 23 | GXR2W682Y |

Life time graph

Useful life depending on ambient temperature T_a and ripple current operating conditions I_r versus rated ripple current at 105°C, 120Hz

