

Anti-sulfurated · Current sensing · wide terminal type chip resistors CXQ series

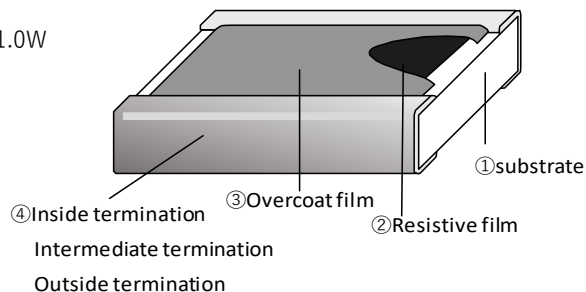
CXQ18 (0612)

*(): Inch size

■Features

- Guaranteed low resistance value 10mΩ and rated power 1.0W
- The use of a wide terminal type improves heat dissipation compared to short terminal type.
- The use of special termination contribute to high performance of anti-sulfuration.
- Also guaranteed $\pm 0.5\%$ (resistance value on request)
- RoHS qualified
- ELV qualified
- AEC-Q200 qualified

■Structure



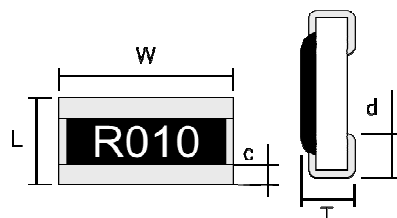
■Part No. Explanation (Example)

| C | X | Q | 5 | 0 | T | T | 8 | R | 0 | 1 | 0 | J |
|---|---|---|---|---|------------------------------------|--------------------|--|---|---|---|---|--|
| Product type | | | Rated power and Size | | Packaging form | Terminal structure | Material · storage | Nominal resistance value(*) | | | | Resistance tolerance |
| CXQ : Current sensing · wide terminal type | | | 18:0.75W,0612 50:1W,1020 1S:2W,1225 | | T : 4mm pitch taping φ 180 reel | T: 2 terminal | 8:Silver Palladium-based material of thick film resistors · the resistive film form side should be stored in upward tape | The resistance value is indicated by 4-digit numbers. | | | | J: $\pm 5\%$ F: $\pm 1\%$ D: $\pm 0.5\%$ |

* R010=0.01Ω,R015=0.015Ω

*If there is a decimal point in resistance value, it is indicated by "R" and all numbers are significant numbers.

■Dimensions



| | L | W | T | c | d |
|-------|-------------|-------------|--------------------------|-------------|-------------|
| CXQ18 | 1.60 ± 0.15 | 3.20 ± 0.15 | 0.55 + 0.10 - 0.05 | 0.25 ± 0.15 | 0.35 ± 0.15 |
| CXQ50 | 2.50 ± 0.20 | 5.00 ± 0.20 | 0.55 ± 0.20 | 0.25 ± 0.20 | 0.90 ± 0.20 |
| CXQ1S | 3.20 ± 0.20 | 6.30 ± 0.20 | 0.60 ± 0.20 | 0.30 ± 0.20 | 1.10 ± 0.20 |

* External dimensions are for reference only.

Overcoat film color : Black

The resistance value is indicated by 4-digit numbers.

Indication color of resistance value : yellow

(Unit: mm)

■ Ratings

| | Rated power | Range of rated resistance | Tolerance on rated resistance | Category temperature range | Temperature Coefficient of Resistance(T.C.R) | | |
|-------|-------------|---------------------------|-------------------------------|----------------------------|--|--------------|---------------------------|
| CXQ18 | 0.75W | 0.01Ω~1Ω | J(±5%) | -55°C~+155°C | | 0.01Ω~0.027Ω | ±700×10 ⁻⁶ /°C |
| | | | | | | 0.03Ω~0.036Ω | ±150×10 ⁻⁶ /°C |
| | | | | | | 0.039Ω~1Ω | ±100×10 ⁻⁶ /°C |
| | | 0.039Ω~1Ω | F(±1%) | -55°C~+155°C | Z | 0.039Ω~1Ω | ±100×10 ⁻⁶ /°C |
| | | 0.039Ω~1Ω | D(±0.5%) | -55°C~+155°C | T | 0.039Ω~1Ω | ±100×10 ⁻⁶ /°C |

* There are the supplementary information about rating on reference page.

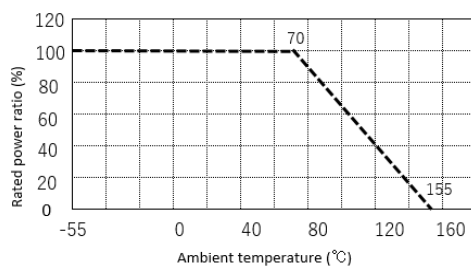
* Possible to accommodate different specs from our catalog. Please contact us for details.

* Temperature Coefficient of Resistance (T.C.R) is based on JIS C5201-1 6.2 between two points: 25°C and 125°C.

■ Specifications and test methods

| Item | Specifications | Test method |
|-----------------------------------|----------------------------|---|
| Overload | ± (2%+0.0005Ω) | JIS C5201-1 8.1 2.5 × Rated voltage, for 5 seconds |
| Bend strength of the face plating | ± (1%+0.0005Ω) | JIS C5201-1 9.8 Bending distance : 3mm |
| Resistance to soldering heat | ± (1%+0.0005Ω) | JIS C5201-1 11.2 260 ± 5°C.10(sec.) |
| Solderability | Covered with more than 95% | JIS C5201-1 11.1 245 ± 3°C.2(sec.) |
| Rapid change of temperature | ± (1%+0.0005Ω) | JIS C5201-1 10.1 -55°C⇄+125°C,1000 |
| Loadlife in humidity | ± (3%+0.0005Ω) | 60 ± 2°C.90~95% R.H 1000h |
| Endurance at 70°C | ± (3%+0.0005Ω) | JIS C5201-1 7.1 70 ± 2°C.1000h |

■ Derating curve



* Rated power of the resistor is the maximum power which can be loaded continuously at the ambient temperature of 70 °C. For the ambient temperature above 70°C, please use according to the load derating curve (dotted line). Please note that the component surface temperature does not exceed operating temperature range.