# Cement Resistor - SQZ Series

LIEAN GIMN

## ELECTRICAL CHARACTERISTICS:

• **SQZ-YE / SQZ-YA / SQZ-YC**

| Power Rating 70°C / Style | SQZ-YE-3W/ SQZ-YA-3W/ SQZ-YC-3W | SQZ-YE-5W/ SQZ-YA-5W/ SQZ-YC-5W | SQZ-YE-7W/ SQZ-YA-7W/ SQZ-YC-7W | SQZ-YE-10W/ SQZ-YA-10W/ SQZ-YC-10W |
|---|---|---|---|---|
| Operating Temp. Range | -55°C ~ +155°C | | | |
| Max. Working Voltage | 250V | 350V | 500V | 500V |
| Max. Overload Voltage | 500V | 700V | 1000V | 1000V |
| Dielectric Withstanding Voltage (AC) | 500V | 700V | 1000V | 1000V |
| Value Range ±5% (Ceramic core) | 0.1 ~ 100Ω | | 0.5 ~ 220Ω | |
| Value Range ±5% (Metal Oxide Film) | 110Ω ~33K | | 240Ω ~10K | |
| Temp. Coefficient | ±300ppm/°C | | | |

• **SQZ-YB / SQZ-YD**

| Power Rating 70°C / Style | SQZ-YB-15W/ SQZ-YD-1-15W SQZ-YB-20W/ SQZ-YD-1-20W | SQZ-YD-3W | SQZ-YD-5W | SQZ-YD-7W | SQZ-YD-10W | SQZ-YD-15W | SQZ-YD-20W |
|---|---|---|---|---|---|---|---|
| Operating Temp. Range | -55°C ~ +155°C | | | | | | |
| Max. Working Voltage | 500V | 250V | 350V | 500V | 500V | 500V | 500V |
| Max. Overload Voltage | 1000V | 500V | 700V | 1000V | 1000V | 1000V | 1000V |
| Dielectric Withstanding Voltage (AC) | 1000V | 500V | 700V | 1000V | 1000V | 1000V | 1000V |
| Value Range ±5% (Ceramic core) | 1.0 ~ 270Ω | 0.1 ~ 100Ω | | 0.5 ~ 220Ω | | 1.0 ~ 270Ω | |
| Value Range ±5% (Metal Oxide Film) | 300Ω ~ 10K | | | | | | |
| Temp. Coefficient | ±300ppm/°C | | | | | | |

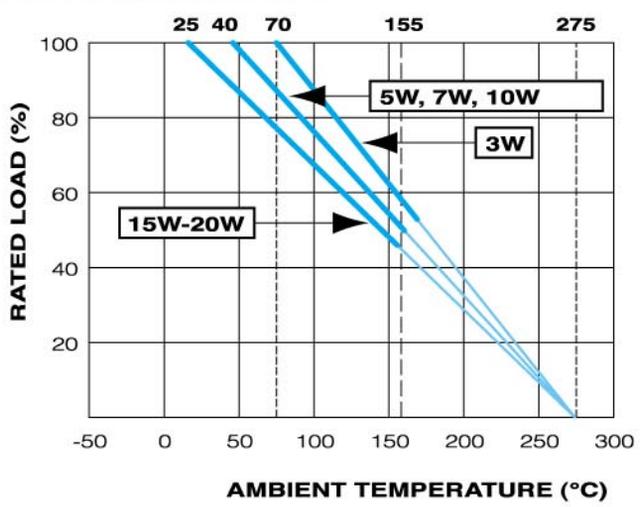
* **a. Standard resistance is as the above list, below or over this resistance is on request.**
**b. Value for NKN Non-Inductive type is up to 50Ω only.**

## ENVIRONMENTAL CHARACTERISTICS:

| PERFORMANCE TEST | TEST METHOD | APPRAISE |
|---|---|---|
| Short Time Overload | JIS-C-5202 5.5: 2.5 times RCWV for 5 seconds | ±(0.25%+0.05Ω) |
| Dielectric Withstanding V. | JIS-C-5202 5.7: in V-Block for 60 seconds | By Type |
| Temperature Coefficient | JIS-C-5202 5.2: -55°C ~ +155°C | Max. 300ppm/°C |
| Insulation Resistance | JIS-C-5202 5.6: in V-Block | ≥ 1000 MΩ |
| Soiderability | JIS-C-5202 6.5: 235°C for 5±0.5 seconds | 95% min. coverage |
| Resistance to Solvent | JIS-C-5202 6.9: Trichroethance for 1 min. with ultrasonic | no deterioration |
| Terminal Strength | Direct load for 10 sec. In the direction of the terminal leads | ≥ 2.5KG/24.5N |
| Pulse Overload | JIS-C-5202 5.8: 4 time RCWV 10000 cycles (1 sec.on, 25 sec.off) | ±(2%+0.05Ω) |
| Toad Life in Humidity | JIS-C-5202 7.9: 40±2°C, 90 ~ 95% RH at RCWV for 1000hrs (1.5hrs. on, 0.5 hrs. off) | ±(5%+0.05Ω) |
| Load Life | JIS-C-5202 7.10: 70°C at RCWV for 1000hrs (1.5hrs. on, 0.5hrs. off) | ±(5%+0.05Ω) |
| Temperature Cycling | JIS-C-5202 7.4: 65°C ~ room temp. ~ 150°C ~ room temp for 5 cycle | ±(2%+0.05Ω) |
| Soldering Heat | JIS-C-5202 6.4: 350±10°C for 3±0.5 seconds | ±(1%+0.05Ω) |

* **Rated continuous Working Voltage (RCWV) = $\sqrt{\text{power rating x resistance value}}$**

## DERATING CURVE




## TEMPERATURE RISE