

◆ Reliability specification

| Test Items | Condition (test methods) | Low | | Regular | | High | | Typical |
|--------------------------------|--|--------|--------|---------|--------|------|--------|----------|
| | | ≤47Ω | ≥47Ω | ≤47Ω | ≥47Ω | ≤47Ω | ≥47Ω | Low |
| Short time overload | 2.5 x rated voltage, ^{*1} 5 seconds | ±0.10% | ±0.05% | ±0.10% | ±0.05% | — | ±0.10% | ±(0.01%) |
| Life (biased) | 70°C, rated voltage, ^{*1} 90min on 30min off, 1000hours | ±0.25% | ±0.10% | ±0.50% | ±0.25% | — | ±0.50% | ±(0.01%) |
| High temperature high humidity | 85°C, 85%RH, 1/10 of rated power, 90min on 30min off, 1000hours | ±0.25% | ±0.10% | ±0.50% | ±0.25% | — | ±0.50% | ±(0.05%) |
| Temperature shock | -55°C (30min) ~ 125°C (30min) 1000cycles | ±0.25% | ±0.10% | ±0.25% | ±0.10% | — | ±0.10% | ±(0.01%) |
| High temperature exposure | 155°C, no bias, 1000hours | ±0.25% | ±0.10% | ±0.25% | ±0.10% | — | ±0.10% | ±(0.01%) |
| Resistance to soldering heat | 260±5°C, 10 seconds (reflow) | ±0.1% | ±0.1% | ±0.1% | ±0.1% | — | ±0.1% | ±(0.01%) |

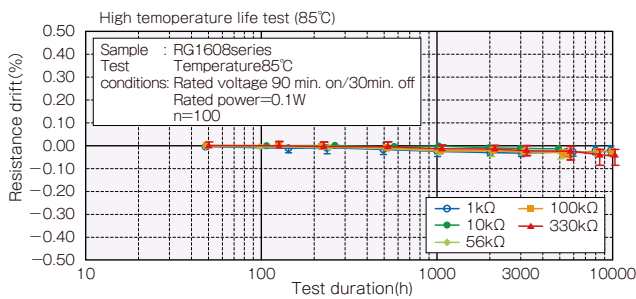
*1 Rated voltage is given by $E = \sqrt{R \times P}$ E= rated voltage (V), R=nominal resistance value(Ω), P=rated power(W)
If rated voltage exceeds maximum voltage /element, maximum voltage/element is the rated voltage.

Thin film surface mount resistors

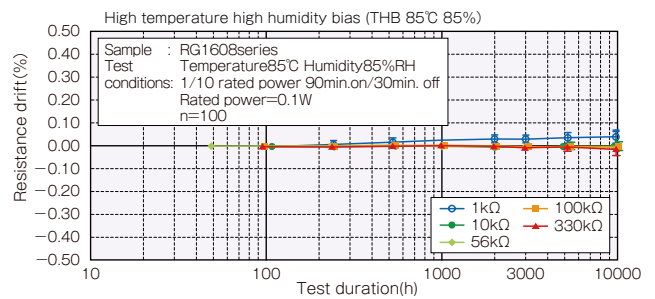
RG series

◆ 10000 hour reliability test data

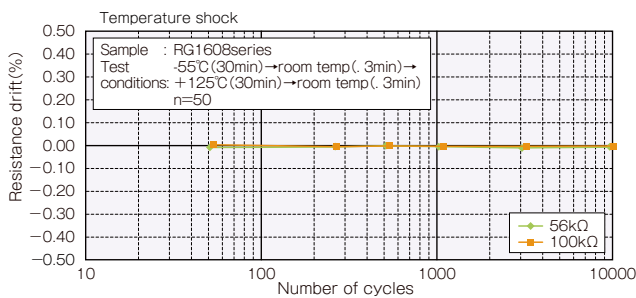
○ Biased life test



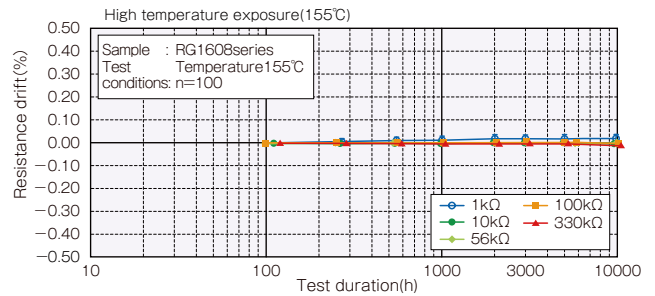
○ High temperature high humidity (biased)



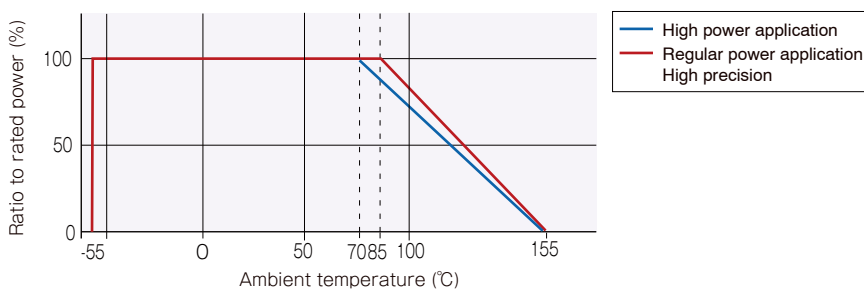
○ Temperature shock



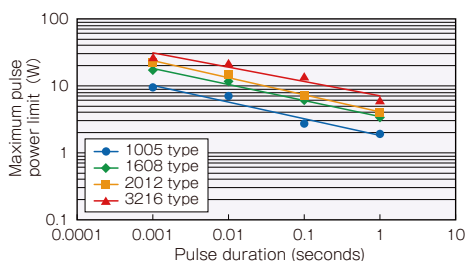
○ High temperature exposure



◆ Derating Curve



◆ Maximum pulse power limit



Test procedure

Voltage pulse is applied to the test samples mounted on the test board.

After each pulse, resistance drift is measured. Pulse voltage is increased until the drift exceeds +/-0.5%.

The power at that voltage is defined as the maximum pulse power.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Susumu:

[RG3216V-1871-B-T1](#) [RG3216V-1871-B-T5](#) [RG3216V-1871-C-T5](#) [RG3216V-1871-D-T5](#) [RG3216V-1871-P-T1](#)
[RG3216V-1871-W-T1](#) [RG3216V-1872-B-T1](#) [RG3216V-1872-B-T5](#) [RG3216V-1872-C-T5](#) [RG3216V-1872-D-T5](#)
[RG3216V-1872-P-T1](#) [RG3216V-1872-W-T1](#) [RG3216V-1910-B-T1](#) [RG3216V-1910-B-T5](#) [RG3216V-1910-C-T5](#)
[RG3216V-1910-D-T5](#) [RG3216V-1910-P-T1](#) [RG3216V-1910-W-T1](#) [RG3216V-1911-B-T1](#) [RG3216V-1911-B-T5](#)
[RG3216V-1911-C-T5](#) [RG3216V-1911-D-T5](#) [RG3216V-1911-P-T1](#) [RG3216V-1911-W-T1](#) [RG3216V-1912-B-T1](#)
[RG3216V-1912-B-T5](#) [RG3216V-1912-C-T5](#) [RG3216V-1912-D-T5](#) [RG3216V-1912-P-T1](#) [RG3216V-1912-W-T1](#)
[RG3216V-1960-B-T1](#) [RG3216V-1960-B-T5](#) [RG3216V-1960-C-T5](#) [RG3216V-1960-D-T5](#) [RG3216V-1960-P-T1](#)
[RG3216V-1960-W-T1](#) [RG3216V-1961-B-T1](#) [RG3216V-1961-B-T5](#) [RG3216V-1961-C-T5](#) [RG3216V-1961-D-T5](#)
[RG3216V-1961-P-T1](#) [RG3216V-1961-W-T1](#) [RG3216V-1962-B-T1](#) [RG3216V-1962-B-T5](#) [RG3216V-1962-C-T5](#)
[RG3216V-1962-D-T5](#) [RG3216V-1962-P-T1](#) [RG3216V-1962-W-T1](#) [RG3216V-2000-B-T1](#) [RG3216V-2000-B-T5](#)
[RG3216V-2000-C-T5](#) [RG3216V-2000-D-T5](#) [RG3216V-2000-P-T1](#) [RG3216V-2000-W-T1](#) [RG3216V-2001-B-T1](#)
[RG3216V-2001-B-T5](#) [RG3216V-2001-C-T5](#) [RG3216V-2001-D-T5](#) [RG3216V-2001-P-T1](#) [RG3216V-2001-W-T1](#)
[RG3216V-2002-B-T1](#) [RG3216V-2002-B-T5](#) [RG3216V-2002-C-T5](#) [RG3216V-2002-D-T5](#) [RG3216V-2002-P-T1](#)
[RG3216V-2002-W-T1](#) [RG3216V-2050-B-T1](#) [RG3216V-2050-B-T5](#) [RG3216V-2050-C-T5](#) [RG3216V-2050-D-T5](#)
[RG3216V-2050-P-T1](#) [RG3216V-2050-W-T1](#) [RG3216V-2051-B-T1](#) [RG3216V-2051-B-T5](#) [RG3216V-2051-C-T5](#)
[RG3216V-2051-D-T5](#) [RG3216V-2051-P-T1](#) [RG3216V-2051-W-T1](#) [RG3216V-2052-B-T1](#) [RG3216V-2052-B-T5](#)
[RG3216V-2052-C-T5](#) [RG3216V-2052-D-T5](#) [RG3216V-2052-P-T1](#) [RG3216V-2052-W-T1](#) [RG3216V-2100-B-T1](#)
[RG3216V-2100-B-T5](#) [RG3216V-2100-C-T5](#) [RG3216V-2100-D-T5](#) [RG3216V-2100-P-T1](#) [RG3216V-2100-W-T1](#)
[RG3216V-2101-B-T1](#) [RG3216V-2101-B-T5](#) [RG3216V-2101-C-T5](#) [RG3216V-2101-D-T5](#) [RG3216V-2101-P-T1](#)
[RG3216V-2101-W-T1](#) [RG3216V-2102-B-T1](#) [RG3216V-2102-B-T5](#) [RG3216V-2102-C-T5](#) [RG3216V-2102-D-T5](#)