



0402 / 0603 / 0805 / 1206 SMD 0.02%, 0.05%, 0.1%, 0.5% Thin Film Chip Resistors
Ultra Precision / Ultra Reliable — RG Series: 1/16, 1/10, 1/8 and 1/4W; RGH Series: 1/6 and 1/4W

Using the conventional properties of Thin Film Resistors, SSM has successfully achieved the environmental, resistance stability and sustained durability issues that are encountered while operating at higher temperatures. We call this "RG" and "RGH" Series (Resistor Great). Higher reliability parts are indispensable in the Automotive, Measurement and Medical Industries as quality requirements increase. Susumu provides a solution with the RG and RGH Series thin film chip

resistors. The RG and RGH Series provide excellent TCR, Low Current Noise and Linearity specifications needed in high frequency applications. Tight tolerance allows for circuit simplification and the elimination of trim pots which leads to cost savings.

Performance: Inorganic protective coating assures high reliability, durability and protection against heat and moisture.

Operating Temperature: -55°C ~ 155°C (RG Series: 100% Power @ 85°C; RGH Series: 100% Power @ 70°C)

Thermal Derating: The RG Series is able to dissipate 100% of rated power @ 85°C; RGH Series @ 70°C. For applications operating above 85°C, the user must derate the resistors in accordance with the derating curve listed.

Applications: Suitable for automotive, measurement devices and any application where accuracy and reliability are required.

Current Noise Comparison Thin Film vs. Thick Film. Why Thin Film Resistors have lower current noise specifications. Includes a graph of Rated Dissipation (%) vs Ambient Temperature (°C) and a diagram of a resistor structure with labels: Resistance Film (thin film), Electrode, Protection Film, Alumina Substrate, Wrap around electrode.

0.02%, 0402 Series, 1/16W — Resistor Values. Table with columns for resistance values: 100, 120, 150, 220, 330, 510, 680, 1.0K, 1.3K, 1.8K, 2.7K.

0.02%, 0603 Series, 1/10W — Resistor Values. Table with columns for resistance values: 110, 150, 220, 330, 470, 680, 1.0K, 1.5K, 2.2K, 3.3K, 4.7K.

0.02%, 0805 Series, 1/8W — Resistor Values. Table with columns for resistance values: 100, 180, 240, 330, 470, 680, 820, 1.1K, 1.5K, 2.2K, 3.3K, 4.7K, 6.8K, 10K.

0.05%, 0603 Series, 1/10W — Resistor Values. Table with columns for resistance values: 47, 91, 180, 360, 680, 1.3K, 2.7K, 5.1K, 10.0K, 20.0K, 39.0K, 82.0K, 160K.

0.05%, 0805 Series, 1/8W and 0.1%, 0805 Series, 1/4W — Resistor Values. Table with columns for resistance values: 47, 100, 220, 470, 1.0K, 2.2K, 4.7K, 10.0K, 22.0K, 47.0K, 100K, 220K, 470K.

0.1%, 0402 Series, 1/16W — Resistor Values. Table with columns for resistance values: 47, 130, 261, 549, 910, 2.0K, 4.02K, 7.5K, 13.7K, 28K, 56K, 97.6K, 100K.

0.1%, 0603 Series, 1/10W — Resistor Values. Table with columns for resistance values: 47.0, 100, 220, 470, 1.0K, 2.2K, 4.7K, 10.0K, 22.0K, 47.0K, 100K, 220K.

0.5%, 0402 Series, 1/16W — Resistor Values. Table with columns for resistance values: 10.0, 30.0, 56.0, 150, 220, 680, 1.00K, 1.60K, 5.10K, 15.0K, 33.0K, 100K.

0.1%, 0603 Series, 1/10W — Resistor Values. Table with columns for resistance values: 47.0, 180, 470, 1.07K, 1.82K, 2.7K, 4.12K, 6.8K, 10.2K, 17.4K, 32.4K, 49.9K, 84.5K, 180K.

0.1%, 0805 Series, 1/8W — Resistor Values. Table with columns for resistance values: 47.0, 180, 475, 1.05K, 2.21K, 3.9K, 6.2K, 11.3K, 20.0K, 33.0K, 51.1K, 91.0K, 200K, 620K.

NEW! 0.1%, 1206 Series, 1/4W — Resistor Values NEW!. Table with columns for resistance values: 47, 110, 249, 560, 1.2K, 2.49K, 4.75K, 10.0K, 20.0K, 39.0K, 80.6K, 178K, 390K, 820K.

Table with columns: Description, Value Range (Ω), TCR ppm/°C, Maximum Operating Voltage (V), Dimensions (mm) L W P T, Digi-Key Part No. \$, Cut Tape Pricing (10, 50, 200), Digi-Key Part No. \$, Tape and Reel Qty., Pricing, Susumu Part No.

For complete part number, substitute corresponding value from the Resistance Value Chart.

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Digi-Reel Most SMT cutdown parts are available on a Digi-Reel. For Digi-Reel part number, change 1-ND to 6-ND or CT-ND to DKR-ND. See Digi-Key Services on page 2 for additional information.

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