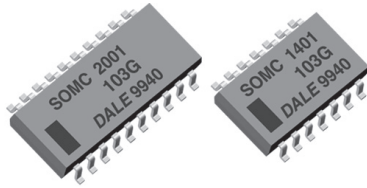


Thick Film, Dual-in-Line Resistor Networks



FEATURES

- 14, 16 or 20 terminal package
- Isolated, bussed or TTL-terminator circuits
- Molded case construction
- Thick film resistive elements
- Reflow solderable
- Compatible with automatic surface mounting equipment
- Reduces total assembly costs
- For wave flow soldering contact factory
- Lead (Pb)-free version is RoHS compliant



RoHS*
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

| GLOBAL MODEL | ELEMENT $P_{70^\circ\text{C}}$ W | PACKAGE POWER RATING $P_{70^\circ\text{C}}$ W | | | CIRCUIT | LIMITING ELEMENT VOLTAGE MAX. V_{\equiv} | TEMPERATURE COEFFICIENT ¹⁾ ppm/°C | TOL. % | RESISTANCE RANGE Ω | E-SERIES |
|--------------|--|--|----------------------|----------------------|----------------|---|---|-------------------------------|------------------------------|----------|
| | | 14 | 16 | 20 | | | | | | |
| SOMC | 0.08 0.16 0.08 | 1.05 1.125 1.05 | 1.20 1.28 1.20 | 1.52 1.60 1.52 | 01 03 05 | 50 | 100 | 1, 2, 5 1, 2, 5 1, 2, 5 | 10R - 1M | 24 |

Notes

1. Temperature Range: - 55 °C to + 125 °C
- Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material
 - Jumper: Zero-Ohm-Resistor on request (100 m Ω)
 - Packaging: according to EIA; see appropriate catalog or web page

TECHNICAL SPECIFICATIONS

| PARAMETER | UNIT | 01 CIRCUIT | 03 CIRCUIT | 05 CIRCUIT |
|--|------------------|------------|--------------------|------------|
| Rated Dissipation at 70 °C per Element | W | 0.08 | 0.16 | 0.08 |
| Limiting Element Voltage ¹⁾ | V_{\equiv} | 50 | | |
| Voltage Coefficient | ppm/V | | < 50 | |
| Insulation Voltage (1 min) | $V_{dc/ac}$ peak | | 200 | |
| Category Temperature Range | °C | | - 55/+ 150 | |
| Insulation Resistance | Ω | | > 10 ¹⁰ | |
| TC Tracking (- 55 °C to + 125 °C) | ppm/°C | | 50 | |

Note: 1. Rated voltage: $\sqrt{P \times R}$

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: SOMC16011K00GDC (preferred part numbering format)

S O M C 1 6 0 1 1 K 0 0 G D C

| GLOBAL MODEL | PIN COUNT | SCHEMATIC | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING | SPECIAL |
|--------------|----------------|--|--|--|--|--|
| SOMC | 14 16 20 | 01 = Bussed 03 = Isolated 00 = Special | R = Decimal K = Thousand M = Million 10R0 = 10 Ω 680K = 680 k Ω 1M00 = 1.0 M Ω | F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ S = Special | EJ = Lead (Pb)-free, Tube EA = Lead (Pb)-free, Tape & Reel DC = Tin/Lead, Tube RZ = Tin/Lead, Tape & Reel | Blank = Standard (Dash Number) (up to 3 digits) From 1-999 as applicable |

Historical Part Number example: SOMC1601102G (will continue to be accepted)

SOMC 16 01 102 G D02

New Global Part Numbering: SOMC2005500BGRZ (preferred part numbering format)

S O M C 2 0 0 5 5 0 0 B G R Z

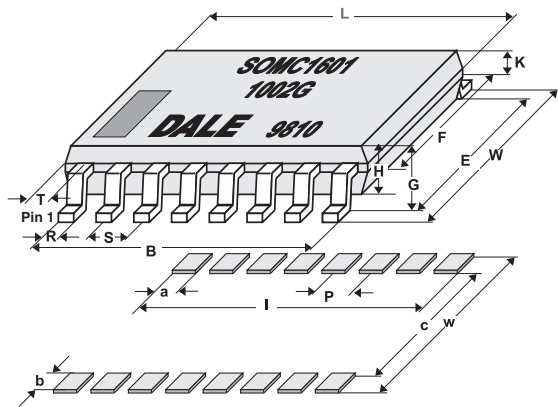
| GLOBAL MODEL | PIN COUNT | SCHEMATIC | RESISTANCE VALUE | TOLERANCE CODE | PACKAGING | SPECIAL |
|--------------|----------------|----------------------|--|---|--|--|
| SOMC | 14 16 20 | 05 = Dual Terminator | 3 digit Impedance code, followed by Alpha modifier (see Impedance table) | F = $\pm 1\%$ G = $\pm 2\%$ J = $\pm 5\%$ | EJ = Lead (Pb)-free, Tube EA = Lead (Pb)-free, Tape & Reel DC = Tin/Lead, Tube RZ = Tin/Lead, Tape & Reel | Blank = Standard (Dash Number) (up to 3 digits) From 1-999 as applicable |

Historical Part Number example: SOMC2005820131G (will continue to be accepted)

SOMC 20 05 810 131 G R61

* Pb containing terminations are not RoHS compliant, exemptions may apply

DIMENSIONS



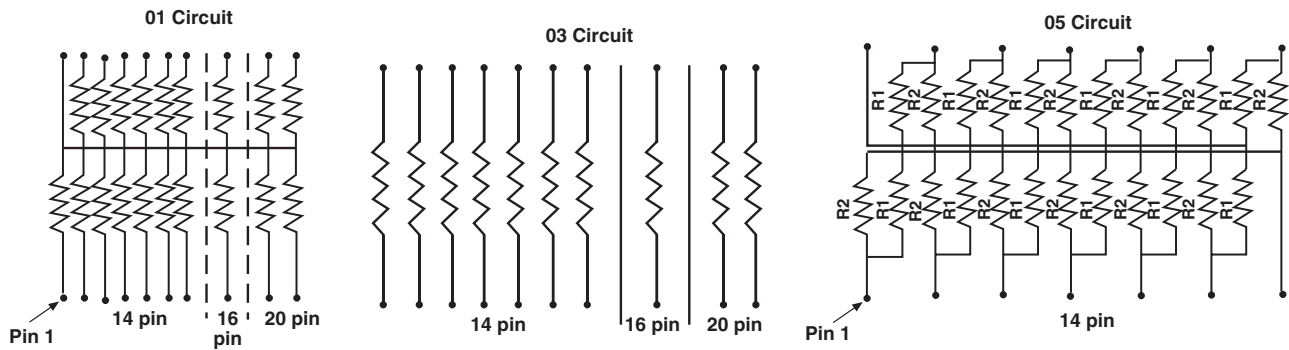
| SOLDER PAD DIMENSIONS in inches [millimeters] | | | | | | |
|---|------|------|------|------|------|------|
| | a | b | c | l | p | w |
| WAVE | 0.64 | 1.91 | 5.34 | 9.53 | 1.27 | 9.15 |
| REFLOW | 0.64 | 1.91 | 5.34 | 9.53 | 1.27 | 9.15 |

The dimension shown are for a 16 pin part. For parts with different pin numbers use the same pitch and add or subtract pads as required.

Note: Maximum solder reflow temperature + 255 °C

| DIMENSIONS [in millimeters] | | | | | | | | | | | |
|-----------------------------|--------|--------|--------|--------|--------|--------|--------|-------|-------|------|--------|
| PIN NO# | L | W | B | E | F | G | H | K | R | S | T |
| 14 | 9.91 | 7.62 | 7.62 | 6.20 | 5.59 | 2.16 | 2.03 | 0.914 | 0.457 | 1.27 | 1.14 |
| 16 | 11.18 | 7.62 | 8.89 | 6.20 | 5.59 | 2.16 | 2.03 | 0.914 | 0.457 | 1.27 | 1.14 |
| 20 | 13.72 | 7.62 | 11.43 | 6.20 | 5.59 | 2.16 | 2.03 | 0.914 | 0.457 | 1.27 | 1.14 |
| Tol | ±0.254 | ±0.381 | ±0.254 | ±0.381 | ±0.127 | ±0.127 | ±0.127 | | | | ±0.254 |

CIRCUIT SCHEMATICS



| IMPEDANCE CODES | | | | | |
|-----------------|--------------------|--------------------|------|--------------------|--------------------|
| CODE | R ₁ (Ω) | R ₂ (Ω) | CODE | R ₁ (Ω) | R ₂ (Ω) |
| 500B | 82 | 130 | 141A | 270 | 270 |
| 750B | 120 | 200 | 181A | 330 | 390 |
| 800C | 130 | 210 | 191A | 330 | 470 |
| 990A | 160 | 260 | 221B | 330 | 680 |
| 101C | 180 | 240 | 281B | 560 | 560 |
| 111C | 180 | 270 | 381B | 560 | 1.2K |
| 121B | 180 | 390 | 501C | 620 | 2.7K |
| 121C | 220 | 270 | 102A | 1.5K | 3.3K |
| 131A | 220 | 330 | 202B | 3K | 6.2K |

| PERFORMANCE | | |
|------------------------------|--------------------|--------------|
| TEST | CONDITIONS OF TEST | TEST RESULTS |
| Power Conditioning | MIL STD-202 | ± 0.5 % |
| Load Life at 70 °C | MIL STD-202 | ± 0.5 % |
| Short Time Overload | MIL STD-202 | ± 0.25 % |
| Thermal Shock | MIL STD-202 | ± 0.5 % |
| Moisure Resistance | MIL STD-202 | ± 0.5 % |
| Resistance to Soldering Heat | MIL STD-202 | ± 0.25 % |
| Low Temperature Operation | MIL STD-202 | ± 0.25 % |
| Vibration | MIL STD-202 | ± 0.25 % |
| Shock | MIL STD-202 | ± 0.25 % |
| Terminal Strength | MIL STD-202 | ± 0.25 % |



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