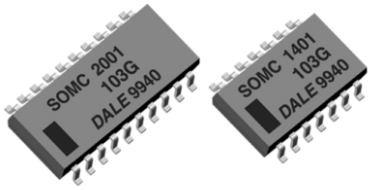
Thick Film, Dual-in-Line Resistor Networks



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

Pb Available

e1 RoHS* COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	ELEMENT $P_{70\,°C}$ W	PACKAGE POWER RATING $P_{70\,°C}$ W			CIRCUIT	LIMITING ELEMENT VOLTAGE MAX. V ≅	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

[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 mΩ)
- 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 [2]	V ≅	50		
Voltage Coefficient	ppm/V	< 50		
Insulation Voltage (1min)	$V_{dc/ac}$ peak	200		
Category Temperature Range	°C	- 55/+ 150		
Insulation Resistance	Ω	> 10^{10}		
TC Tracking (- 55 °C to + 125 °C)	ppm/°C	50		

[2] 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 kΩ **1M00** = 1.0 MΩ	**F** = ± 1 % **G** = ± 2 % **J** = ± 5 % **S** = Special	**EJ** = Lead Free, Tube **EA** = Lead 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
HISTORICAL MODEL	PIN COUNT	SCHEMATIC	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING

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 Impedence code, followed by Alpha modifier (see Impedence table	**F** = ± 1 % **G** = ± 2 % **J** = ± 5 %	**EJ** = Lead Free, Tube **EA** = Lead 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
HISTORICAL MODEL	PIN COUNT	SCHEMATIC	RESISTANCE VALUE 1	RESISTANCE VALUE 2	TOLERANCE CODE	PACKAGING

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

For technical questions, contact: ff2aresistors@vishay.com
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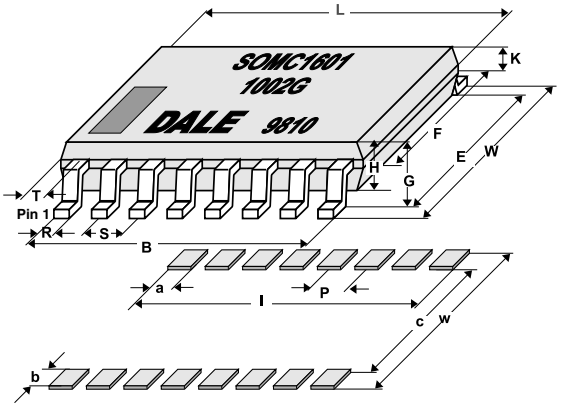
DIMENSIONS



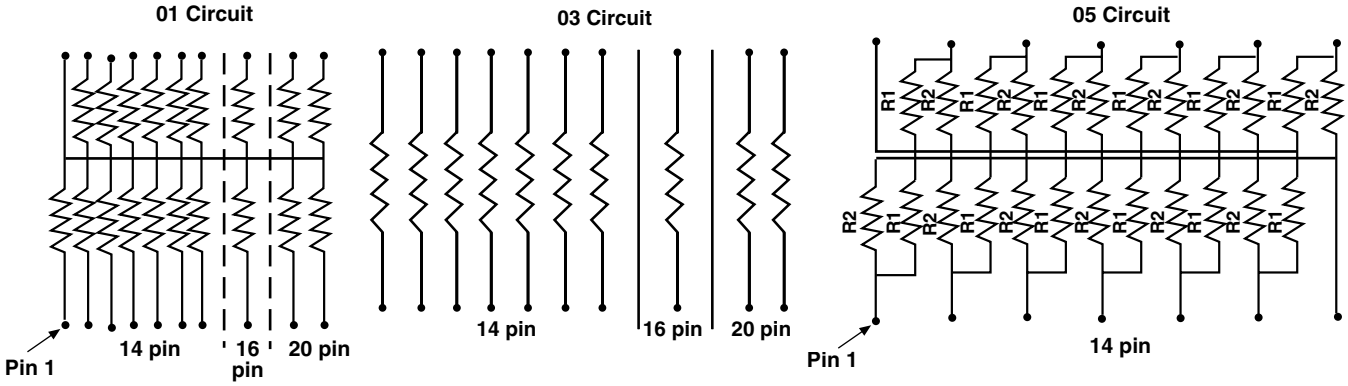
SOLDER PAD DIMENSIONS in inches [millimeters]						
	a	b	c	l	p	w
WAVE	0.64	1.91	5.34	9.53	1.27	9.15
REFLOW	0.64	1.91	5.34	9.53	1.27	9.15

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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