# Vishay Dale



# Thick Film, Dual-in-Line Resistor Networks



#### **FEATURES**

- 14,16 or 20 terminal package
- Isolated, bussed or TTL-terminator circuits
- Molded case construction
- Highly stable thick film elements
- Reflow solderable
- Compatible with automatic surface mounting equipment
- Reduces total assembly costs
- For wave flow soldering contact factory

STANDARD ELECTRICAL SPECIFICATIONS										
GLOBAL MODEL	ELEMENT P <sub>70°C</sub>	PACKAGE POWER RATING P <sub>70°C</sub> W			CIRCUIT	LIMITING ELEMENT	TEMPERATURE COEFFICIENT <sup>1)</sup>	TOL.	RESISTANCE RANGE	E-SERIES
WODEL	W	14	16	20		VOLTAGE MAX.	ppm/°C	70	Ω	
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

<sup>•</sup> 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 <sub>dc/ac</sub> peak	200					
Category Temperature Range	°C	- 55 / + 150					
Insulation Resistance	Ω	> 10 <sup>10</sup>					
TC Tracking (- 55°C to + 125°C)	ppm/°C	50					

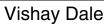
<sup>&</sup>lt;sup>2)</sup>Rated voltage:  $\sqrt{PxR}$ 

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								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								
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)  SOMC2005500BGRZ (preferred part numbering format)  Rev Global Part Numbering: SOMC2005500BGRZ (preferred part numbering format)								
GLOBAL MODEL PIN COUNT SCHEMATIC RESISTANCE TOLERANCE PACKAGING SPECIAL								
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								
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 CODE PACKAGING								

For technical questions contact: ff2aresistors@vishay.com Document Number: 31508 Revision: 10-Oct-05

<sup>1)</sup>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

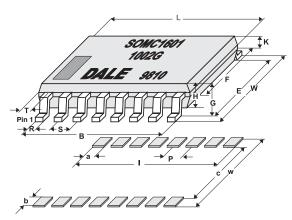
Jumper: Zero-Ohm-Resistor on request (100mΩ)





### Thick Film, Dual-in-Line Resistor Networks

#### **DIMENSIONS**



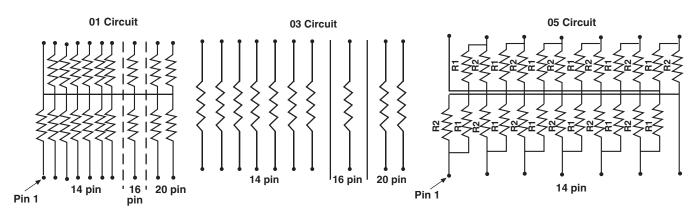
SOLDER PAD DIMENSIONS in inches [millimeters]							
	a b c l p w						
WAVE	0.64	1.91	5.34	9.53	1.27	9.15	
<b>REFLOW</b> 0.64 1.91 5.34 9.53 1.27 9.15							

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	В	E	F	G	Н	К	R	S	Т
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 <sub>1</sub> (Ω)	$R_2(\Omega)$	CODE	<b>R</b> <sub>1</sub> (Ω)	$R_2(\Omega)$		
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%			

Revision: 10-Oct-05

Document Number: 31508 For technical questions contact: <u>ff2aresistors@vishay.com</u>

## **Legal Disclaimer Notice**



Vishay

## **Notice**

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.

Document Number: 91000 www.vishay.com Revision: 08-Apr-05