

Thick Film Resistor Networks, Dual-In-Line, Medium Body, Small Outline, Molded DIP, Surface Mount



FEATURES

- Isolated, bussed and dual terminator schematics available
- 14, 16 or 20 terminal package
- 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
- Compliant to RoHS directive 2002/95/EC

STANDARD ELECTRICAL SPECIFICATIONS										
	P	OWER R	ATING							
GLOBAL MODEL	ELEMENT P _{70 °C} W	PACKAGE P _{70 °C} W		CIRCUIT	MAXIMUM WORKING VOLTAGE ⁽²⁾ V _{DC}		TOLERANCE ⁽³⁾ ± %	RESISTANCE RANGE Ω	E-SERIES	
	vv	14	16	20		• DC				
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	10 to 1M	24

Notes

• DSCC has created series of drawings to support the need for a surface mount gull wing resistor network product. Vishay Dale is listed as a resource on this drawing as follows:

DSCC			POWER	RATING	RESISTANCE		TEMPERATURE	MAXIMUM
DRAWING NUMBER	VISHAY DALE MODEL	CIRCUIT	ELEMENT <i>P</i> _{70 °C} W	PACKAGE P _{70 °C} W	RANGE Ω	TOLERANCE ± %	COEFFICIENT (0 °C to 70 °C) ± ppm/°C	WORKING VOLTAGE ⁽²⁾ V _{DC}
87012	SOMC160116 SOMC160317 SOMC160548	01 (B) 03 (A) 05 (J)	0.08 0.16 0.08	1.20	10 to 2.2M	1, 2, 5	100, 300	50
87013	SOMC14016 SOMC140313 SOMC140522	01 (B) 03 (A) 05 (J)	0.08 0.16 0.08	1.00	10 to 2.2M	1, 2, 5	100, 300	50

These drawings can be viewed at: www.dscc.dla.mil/Programs/milSpec/ListDwgs.asp?DocType=DSCCdwg.

· Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material.

• Jumper: 0 Ω -resistor on request (100 m Ω).

• Packaging: According to EIA; see appropriate catalog or web page.

⁽¹⁾ Temperature range: - 55 °C to + 125 °C.

⁽²⁾ Continuous working voltage shall be $\sqrt{P \times R}$ or maximum working voltage, whichever is less.

 $^{(3)}$ ± 2 % standard, ± 1 % and ± 5 % available.

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 (4)	V _{DC}	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

⁽⁴⁾ Rated voltage: $\sqrt{P \times R}$.

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



COMPLIANT



Vishay Dale

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GLOBA	GLOBAL PART NUMBER INFORMATION												
New Globa	I Part N	lumber	ring: SOMC1	6011K0	00GDC ((prefe	erred pa	art number	ring f	ormat)			
S	0	М	C 1	6	0	1	1	К	D	0 G	DC		
GLOBAL MODEL	PIN C	OUNT	SCHEM	ATIC		ISTA /ALUI		TOLERAI		PA	CKAGING		SPECIAL
SOMC	1	4 6 20	01 = Bu: 03 = Iso 00 = Sp	ated	۴ M		Ω Ω 0 Ω 60 kΩ	F = ± 1 G = ± 2 J = ± 5 S = Spec	% %	EA = Lead (F DC =	ad (Pb)-free, tube Pb)-free, tape and Tin/lead, tube ead, tape and ree		Blank = Standard (Dash number) (Up to 3 digits) From 1 to 999 as applicable
		mber E	Example: SO	MC160	1102G (ontinu	e to be acc	epte	d)			
SOM	С		16			01			102		G		D02
HISTOR MODE			PIN COUN	Г	SCH	HEMA	TIC		SISTA /ALU		TOLERANCE CODE		PACKAGING
New Globa	I Part N	lumber	ring: SOMC2	005500	BGRZ (prefe	rred pa	rt number	ing fo	ormat)			
S	0	М	C 2	0	0	5	5	0 (D	BG	RZ		
GLOBAL			'][BES	ISTA	NCE	TOLERA			<u>C</u>		
MODEL	PIN C	OUNT	SCHEM	ATIC		ALUI		CODE		PA	CKAGING		SPECIAL
SOMC	1	4 6 20	05 = Dual term		(see l	follow a mod	ved by difier dance	$F = \pm 1$ $G = \pm 2$ $J = \pm 5$	%	EA = Lead (F DC =	ad (Pb)-free, tube Pb)-free, tape and Tin/lead, tube ead, tape and ree		Blank = Standard (Dash number) Up to 3 digits From 1 to 999 as applicable
Historical I	Part Nu	mber E	Example: SO	MC200	5820131	IG (w	ill cont	inue to be	acce	pted)			
SOMC			20		05			820		131	G		R61
HISTORIC		PIN	COUNT	SCH	IEMATIO	С	-	STANCE LUE 1	F	RESISTANCE VALUE 2	TOLERANC CODE	E	PACKAGING

CIRCUIT SCHEMATICS





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SOMC

DIMENSIONS



SOLDER PAD DIMENSIONS in millimeters								
	а	b	с	Ι	р	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		

Notes

• 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.

• Maximum solder reflow temperature + 255 °C.

DIMEN	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	

IMPEDANCE CODES							
CODE	R ₁ (Ω)	R₂ (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	ЗK	6.2K		

PERFORMANCE						
TEST	CONDITIONS OF TEST	TEST RESULTS (TYPICAL TEST LOTS)				
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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