



**Thick Film Resistor Networks, Dual-In-Line
Small Outline Molded Dip 45 & 46 Schematics**



FEATURES

- 0.110" [2.79] maximum seated height
- Rugged, molded case construction
- 0.050" [1.27] lead spacing
- Reduces total assembly costs
- Compatible with automatic surface mounting equipment
- Uniform performance characteristics
- Meets EIA PDP 100, SOGN-0003 outline dimensions
- Available in tube pack or tape and reel pack
- Lead (Pb)-free version is RoHS compliant



RoHS*
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS							
GLOBAL MODEL	CIRCUIT SCHEMATIC	RESISTOR CIRCUIT W AT 70 °C	PACKAGE POWER W AT 70 °C	TOLERANCE ± %	RESISTANCE VALUES Ω	OPERATING VOLTAGE VDC	TEMPERATURE COEFFICIENT ± ppm/°C
SOGC16	45	0.1	1.6	2	180, 270, 820	50 max	100
	46	0.1	1.6	2	330, 150, 330	50 max	100
SOGC20	45	0.1	2.0	2	180, 270, 820	50 max	100
	46	0.1	2.0	2	330, 150, 330	50 max	100

TECHNICAL SPECIFICATIONS			
PARAMETER	UNIT	SOGC16	SOGC20
Package Power Rating: (Maximum at + 70°C)	W	1.6	2.0
TC Tracking: (- 55°C to + 125°C)	ppm/°C	± 50	
Voltage Coefficient of Resistance:	ppm/V	< 50 typical.	
Maximum Operating Voltage:	VDC	50	
Operating Temperature Range:	°C	- 55 to + 125	
Storage Temperature Range:	°C	- 55 to + 150	

MECHANICAL SPECIFICATIONS	
Marking	Model number, schematic number, value, tolerance, pin 1 indicator, date code
Marking Resistance to Solvents	Permanency testing per MIL-STD-202, Method 215
Maximum Solder Reflow Temperature	+ 255 °C
Solderability	Per MIL-STD-202, Method 208E
Terminals	Copper alloy. Solder dipped terminal
Body:	Molded epoxy

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: SOGC1646DC (preferred part numbering format)

S	O	G	C	1	6	4	6	D	C			
---	---	---	---	---	---	---	---	---	---	--	--	--

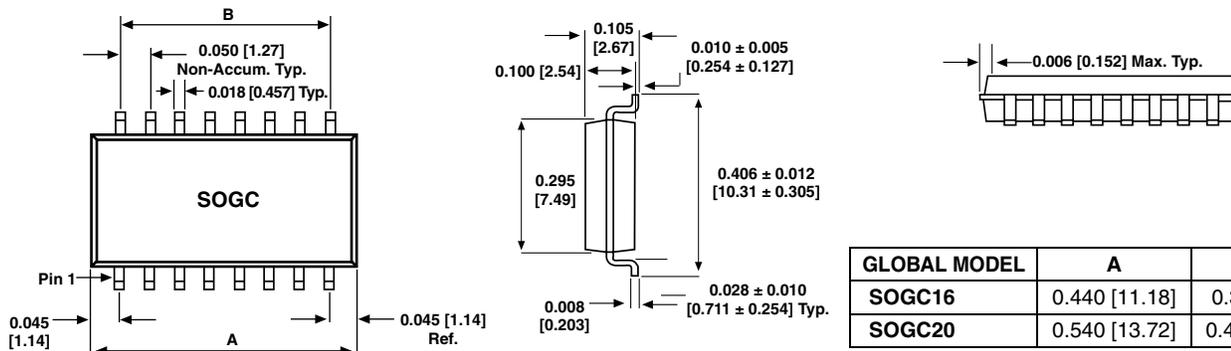
GLOBAL MODEL SOGC	PIN COUNT 16 20	SCHEMATIC 45 = TTL/ECL Translator 46 = Signal Terminator	PACKAGING EJ = Lead Free, Tube EA = Lead Free, Tape & Reel DC = Tin/Lead, Tube RZ = Tin/Lead, Tape & Reel	SPECIAL Blank = Standard (Dash Number) (up to 3 digits) From 1-999 as applicable
-----------------------------	------------------------------	---	--	---

Historical Part Number example: SOGC1646 (will continue to be accepted)

SOGC	16	46	D02
HISTORICAL MODEL	PIN COUNT	SCHEMATIC	PACKAGING

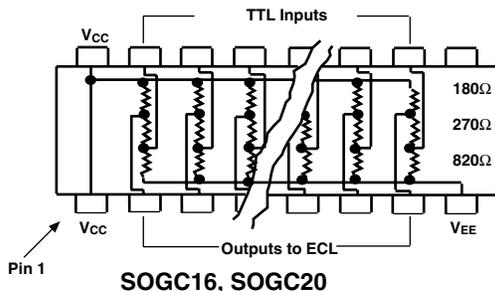
* Pb containing terminations are not RoHS compliant, exemptions may apply

DIMENSIONS in inches [millimeters]



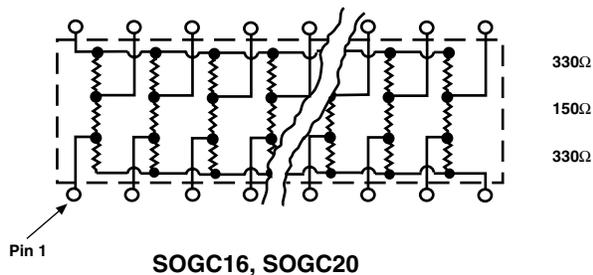
CIRCUIT APPLICATIONS

45 Schematic

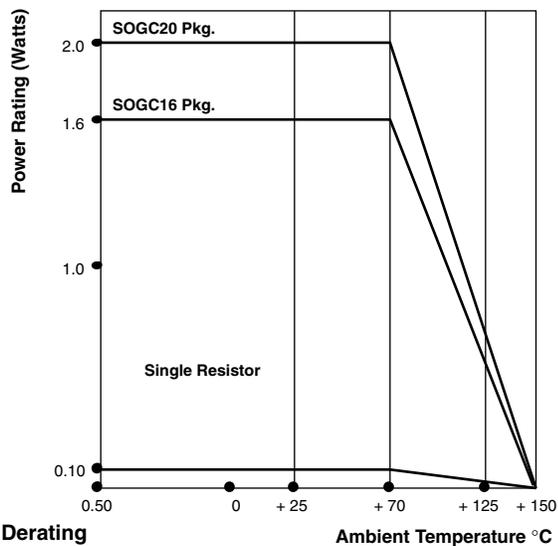


TTL to ECL translator
The SOGCxx45 network consists of resistors of 3 different values, internally divided into 6 or 8 identical three (3) resistor sections for TTL to ECL translation.

46 Schematic



SCSI-BUS signal terminator
The SOGCxx46 network consists of resistors of 2 different values, internally divided into 7 or 9 identical three (3) resistor sections for SCSI-BUS terminator applications.



PERFORMANCE

TEST	MAX. ΔR (TYPICAL TEST LOTS)
Power Conditioning	± 0.50 % ΔR
Thermal Shock	± 0.50 % ΔR
Short Time Overload	± 0.25 % ΔR
Low Temperature Operation	± 0.25 % ΔR
Moisture Resistance	± 0.50 % ΔR
Resistance to Soldering Heat	± 0.25 % ΔR
Shock	± 0.25 % ΔR
Vibration	± 0.25 % ΔR
Load Life	± 0.50 % ΔR
Terminal Strength	± 0.25 % ΔR
Insulation Resistance	10 000 Megohm (minimum)
Dielectric Withstanding Voltage	No evidence of arcing or damage (200 V RMS for 1 minute)

* Test methods per MIL-STD-202



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.