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

FEATURES

- TTL/ECL translator and signal terminator schematics available
- 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
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Pb Available

e1 RoHS* Available

Note

* This datasheet provides information about parts that are RoHS-compliant and/or parts that are non-RoHS-compliant. For example, parts with lead (Pb) terminations are not RoHS-compliant. Please see the information/tables in this datasheet for details.

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	CIRCUIT SCHEMATIC	POWER RATING ELEMENT $P_{70\,°C}$ W	POWER RATING PACKAGE $P_{70\,°C}$ W	TOLERANCE ± %	RESISTANCE VALUES Ω	MAXIMUM WORKING VOLTAGE (1) V_{DC}	TEMPERATURE COEFFICIENT ± ppm/°C
SOGC16	45	0.1	1.6	2	180, 270, 820	50	100
	46	0.1	1.6	2	330, 150, 330	50	100
SOGC20	45	0.1	2.0	2	180, 270, 820	50	100
	46	0.1	2.0	2	330, 150, 330	50	100

Note

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

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	S0GC16	SOGC20
Package power rating (maximum at +70 °C)	W	1.6	2.0
TCR tracking (-55 °C to +125 °C)	ppm/°C	± 50	
Voltage coefficient of resistance	ppm/V	< 50 typical	
Maximum operating voltage	V_{DC}	50	
Operating temperature range	°C	-55 to +125	
Storage temperature range	°C	-55 to +150	

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	PIN COUNT	SCHEMATIC	PACKAGING	SPECIAL
SOGC	**16** **20**	**45** = TTL/ECL translator **46** = SIGNAL terminator	**EJ** = Lead (Pb)-free, tube **EA** = Lead (Pb)-free, tape and reel **DC** = Tin/lead, tube **RZ** = Tin/lead, tape and reel	Blank = Standard (Dash number) (Up to 3 digits) From **1 to 999** as applicable

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

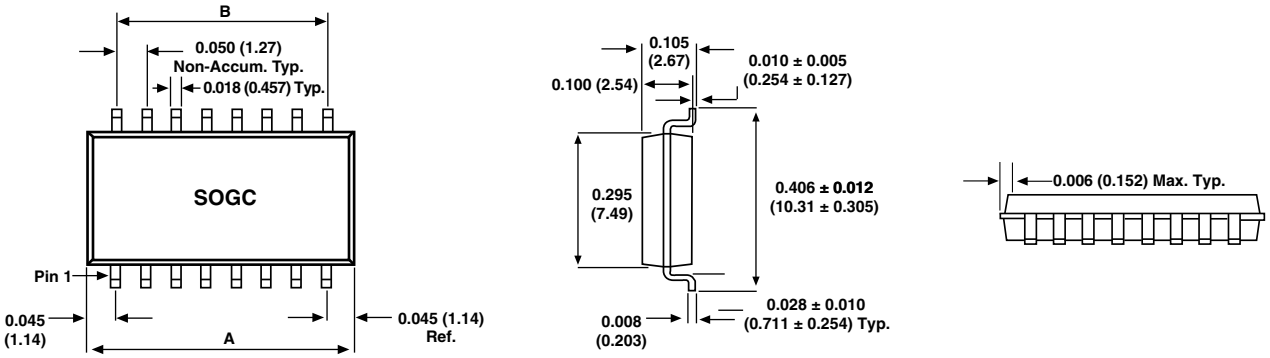
SOGC	16	46	D02
HISTORICAL MODEL	PIN COUNT	SCHEMATIC	PACKAGING

Note

- For additional information on packaging, refer to the Surface Mount Network Packaging document (www.vishay.com/doc?31540).

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

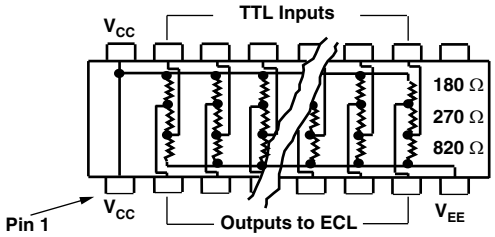
DIMENSIONS in inches (millimeters)



GLOBAL MODEL	A	B
SOGC16	0.440 (11.18)	0.350 (8.89)
SOGC20	0.540 (13.72)	0.450 (11.43)

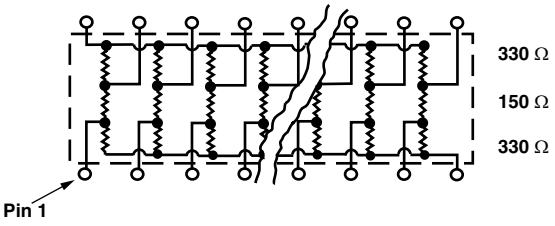
CIRCUIT APPLICATIONS

45 Schematic

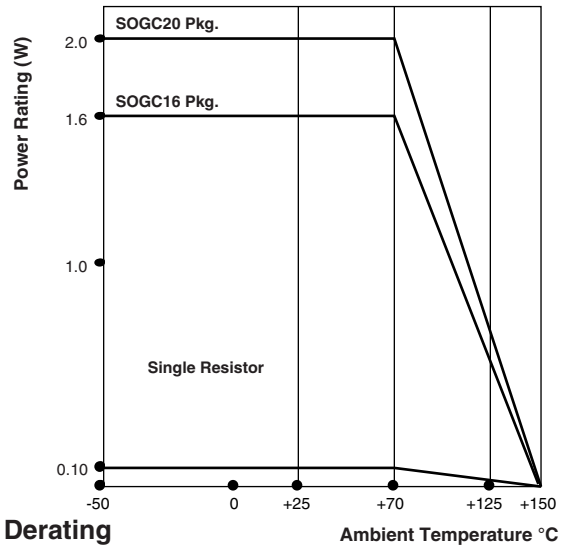


TTL to ECL translator
The SOGCxx45 network consists of resistors of 3 different values, internally divided into 6 or 8 identical three (3) resistor sections for TTL to ECL translation.

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 MΩ (minimum)
Dielectric withstanding voltage	No evidence of arcing or damage ($200\ V_{RMS}$ for 1 min)

Note

- Test methods per MIL-STD-202.

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