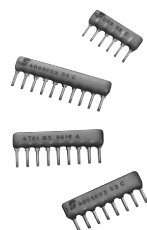


High Reliability Resistor Networks, Thick Film Technology



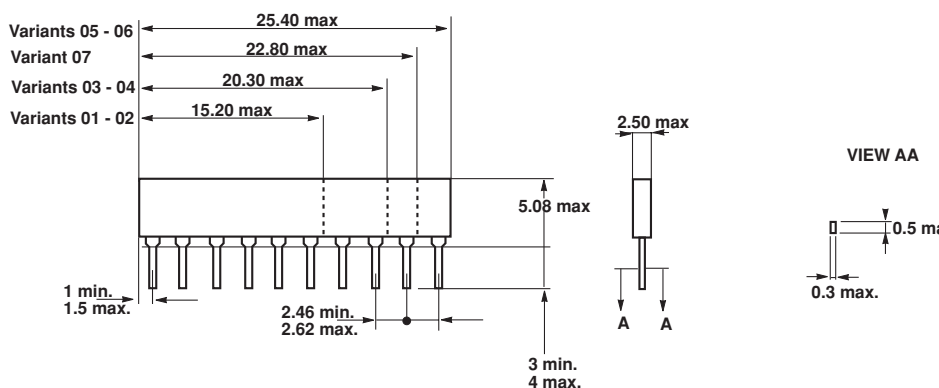
FEATURES

To comply to the ESA specifications, two quality levels are available:

- Level B with serialized components
- Level C without serialization
- ESA/SCC 4005

Originally developed for space applications, these resistor networks are screened and fired on an alumina substrate. An epoxy coating assures the protection of the resistors. SIL networks are manufactured selected and tested to the ESA/SCC 4005 specification.

DIMENSIONS in millimeters



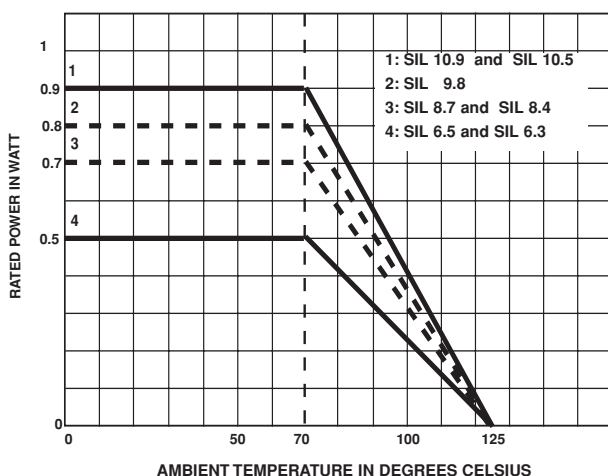
ELECTRICAL SPECIFICATIONS							
VISHAY SFERNICE DESIGNATION	SILHR 6.3	SILHR 6.5	SILHR 8.4	SILHR 8.7	SILHR 10.5	SILHR 10.9	SILHR 9.8
SCC Variant	01	02	03	04	05	06	07
Power Dissipation at +70°C	per element						
	0.18W	0.1W	0.18W	0.1W	0.18W	0.1W	0.1W
Power Dissipation at +70°C	per case						
	0.5W	0.5W	0.7W	0.7W	0.9W	0.9W	0.8W
ESA Specification	4005/003						
Qualified Ohmic Range	46.4 to 1MΩ						
Tolerance	± 2% or 2Ω						
Limiting Element Voltage	100V						
Max. Weight in g	0.4	0.4	0.5	0.5	0.7	0.7	0.8
Temperature Range	- 55°C + 125°C						

ELECTRICAL SCHEMATICS	
VARIANT 01	VARIANT 02
VARIANT 03	VARIANT 04
VARIANT 05	VARIANT 06
VARIANT 07	

Networks with isolated resistors and the same ohmic value (variants 01, 03, 05), or with a common point and same ohmic value (variants 02, 04, 06 and 07).

PERFORMANCE			
TESTS	CONDITIONS	LIMIT DRIFTS	
		R ≤ 100Ω	R > 100Ω
Insulation Resistance	U T = 100V	Insulation resistance ≥ 10GΩ	Insulation resistance ≥ 10GΩ
Soldering (Thermal Shock)	260°C during 10 seconds	≤ ± 1Ω	≤ ± 0.5%
Short Time Overload	2.5 Pn during 5 seconds limited to 2 UL	≤ ± 1Ω	± 0.5%
Terminal Strength	CEI 68-2-21, test Ua1 on 3 terminals per network	≤ ± 1Ω	± 0.5%
Rapid Temperature Change	CEI 68-2-14, test Na 25 cycles	≤ ± 1Ω	± 0.5%
Vibration	CEI 68-2-6, test Fc 10 - 2000Hz/20g	≤ ± 1Ω	± 0.5%
Climatic Sequence	SCC 4005 and CEI 68 -2- ... , - 55°C/+ 125°C, 5 cycles	≤ ± 1Ω Insulation res. ≥ 100MΩ	± 0.5% Insulation res. ≥ 100MΩ
Load Life	Nominal power 2000h at + 70°C, 90°/30° cycle limited to UL	≤ ± 1Ω Insulation res. ≥ 100MΩ	± 1.5% Insulation res. ≥ 100MΩ
High Temperature Exposure	2000 h no load at + 150°C	≤ ± 1Ω Insulation res. ≥ 100MΩ	± 1.5% Insulation res. ≥ 100MΩ

POWER RATING CHART



TEMPERATURE COEFFICIENT OF RESISTANCE

Nominal temperature coefficient of resistance in the temperature range from - 55°C to + 125°C is: ± 150ppm/°C.

PACKAGING

Networks are packaged in transparent blisters of 50 pieces.

Information printed on the blister is: SFERNICE designation, ESA/SCC detail specification, quality level, ohmic value, tolerance and manufacturing date code.

MARKING

The SCC component number is print marked. On one side: terminal 1, the manufacturer's logo, the number of the detail specification which refers to the generic specification, the variant number (2 digits), quality level B or C.

On the other side: the ohmic value (4 digit code), the tolerance (letter code G: ± 2% or A: 2), the manufacturing date code (4 digits), two for the year and two for the week, the identification lot (except for 6.3 and 6.5 models).

ORDERING INFORMATION

SIL HR	9.8	470kΩ	± 2%	07	C1
MODEL	VERSION	OHMIC VALUE	TOLERANCE	SCC VARIANT	QUALITY LEVEL
				01 04	B1 C1
				02 05	B2 C2
				03 06	B3 C3
				07	