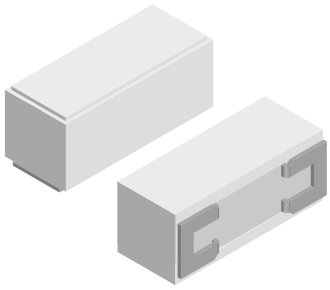
Wirewound Resistors, Commercial Power, Surface Mount



FEATURES

- Very stable mounting
- Non-flammable
- High pulse load handling capabilities
- High heat and moisture resistance
- Suitable for SMD technology

Pb-free

e3

RoHS COMPLIANT

Please reference the Vishay Dale closest equivalents: CPSM or WSC (for CPSM datasheet please visit our website: http://www.vishay.com/doc?30106 and for WSC datasheet: http://www.vishay.com/doc?30102).

Note:

• There may be slight differences between the Vishay Phoenix and the Vishay Dale crosses

TECHNOLOGY

The resistive element is a wire that is wound on a fiberglass core.

The resistive body and lead ends are housed within a rectangular ceramic case which is non-flammable, will not melt even at high overloads and is resistant to most commonly used cleaning solvents, in accordance with IEC 60068-2-45.

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	POWER RATING $P_{40\ °C}$ W	RESISTANCE RANGE Ω	TOLERANCE %	E-SERIES Decade Values
SEW03	3	0.22 - 1.5	± 10	24
		1.6 - 3.9K	± 5	
SEW05	5	0.47 - 1.5	± 10	24
		1.6 - 4.79K	± 5	

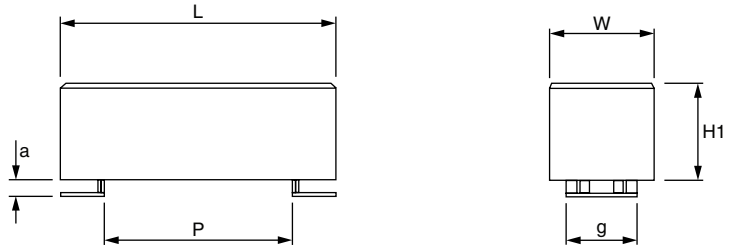
TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	SEW RESISTOR CHARACTERISTICS
Limiting Voltage	V	$\sqrt{P \times R}$
Insulation Voltage	V	> 2000
Temperature Coefficient (1)	ppm/°C	± 100
Operating Temperature	°C	- 65 to + 275
Maximum Permissible Body Temperature	°C	+ 275
Short Time Overload	-	5 x rated power for 5 s

Note:

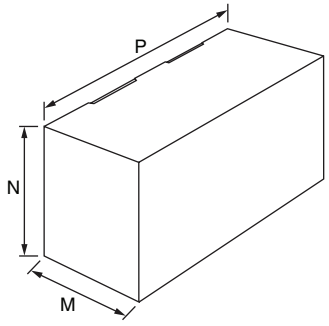
(1) Temperature Coefficient of ± 30, 50 or 90 ppm/°C available upon request

DIMENSIONS in millimeters (inches)



PRODUCT	L	W	H1	g	a (maximum)	P
SEW03	24.0 ± 1.0 (0.94 ± 0.04)	9.0 ± 1.0 (0.35 ± 0.04)	9.0 ± 1.0 (0.35 ± 0.04)	7.3 ± 0.3 (0.29 ± 0.02)	2.0 (0.08)	12.5 ± 1.0 (0.49 ± 0.04)
SEW05	27.0 ± 1.0 (1.06 ± 0.04)	9.5 ± 1.0 (0.37 ± 0.04)	9.5 ± 1.0 (0.37 ± 0.04)	7.3 ± 0.3 (0.29 ± 0.02)	2.0 (0.08)	15.0 ± 1.0 (0.59 ± 0.04)

PACKAGING in millimeters (inches)



PRODUCT	QUANTITY	P	N	M
SEW03	525	262 (10.3)	84 (3.3)	128 (5.1)
SEW05	480	262 (10.3)	84 (3.3)	128 (5.1)

ORDERING CODE

PRODUCT	ORDERING CODE	NAFTA PART NUMBER
SEW03	2306 260 03xxx	SEW03WxxxxxK
SEW05	2306 260 05xxx	SEW05WxxxxxK

MARKING

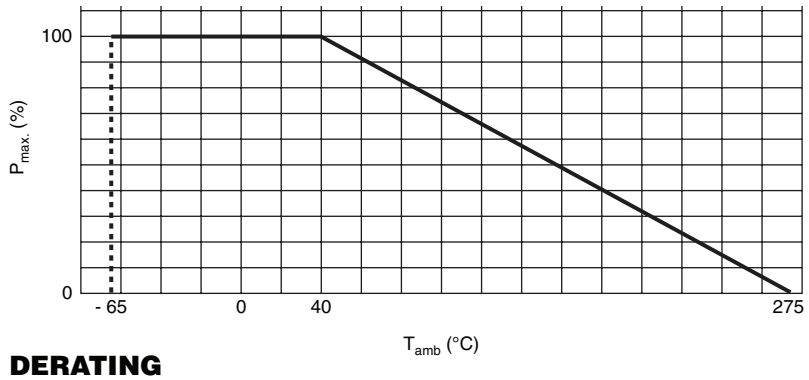
The resistor is marked with the resistor type, the nominal resistance value (R for values Ω and K for values kΩ is used as decimal point), the resistance tolerance and the production date (week and year), are printed in black on the resistor body.

Example:

PHX	SEW05	5 W
2K2	5 %	603

ELECTRICAL CHARACTERISTICS

The power that the resistor can dissipate depends on the operating temperature.



DERATING

Maximum dissipation ($P_{max.}$) in percentage of rated power as a function of the ambient temperature (T_{amb})

TESTS AND REQUIREMENTS

Essentially all tests are carried out in accordance with the schedule of IEC publications 60115-1, category 65/275/56 (rated temperature range - 65 to + 275 °C; damp heat, long term, 56 days and along the lines of IEC publications 60068-2); "Recommended basic climatic and mechanical robustness testing procedure for electronic components" and under standard atmosphere conditions according to IEC 60068-1 subclause 5.3, unless otherwise specified.
In some instances deviations from IEC applications were necessary for our specified method.

PERFORMANCE				
IEC 60115-1 CLAUSE	**IEC 60068-2 TEST METHOD**	**TEST**	**PROCEDURE**	**REQUIREMENTS**
4.6.1.1	-	Insulation resistance	500 V_{DC} during 1 min; V-block method	$R_{ins\ min.}$ 100 MΩ
4.7	-	Voltage proof on insulation	1000 V_{RMS} during 1 min; V-block method	No damage $\Delta R/R_{max.}$ ± 0.5 % + 0.05 Ω
4.8	-	Temperature coefficient	Between - 25 °C and + 155 °C	± 100 ppm/°C
4.13	-	Short time overload	Room temperature P = 5 x Pn, 5 s	$\Delta R/R_{max.}$ ± 2 % + 0.1 Ω
4.23		Climatic sequence:		$\Delta R/R_{max.}$ ± 1 % + 0.05 Ω
4.23.2	2(Ba)	Dry heat	16 h, + 155 °C	
4.23.3	30(Db)	Damp heat (accelerated) 1st cycle	24 h, 25 °C to 55 °C; 90 to 100 % RH	
4.23.4	1(Aa)	Cold	2 h, - 25 °C	
4.23.6	30 (Db)	Damp heat (accelerated) remaining cycles	5 days, 25 °C to 55 °C; 90 to 100 % RH	
4.24	3 (Ca)	Damp heat (steady state)	56 days; 40 °C; 90 to 95 % RH; loaded with 0.01 Pn	$\Delta R/R_{max.}$ ± 3 % + 0.1 Ω
4.25.1	-	Endurance (at 40 °C)	1000 h load with Pn; 1.5 h ON and 0.5 h OFF	$\Delta R/R_{max.}$ ± 5 % + 0.1 Ω

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