

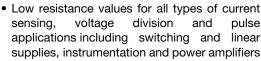
Vishay Dale

# Wirewound Resistors, Open Air, Current Sense, Low Value



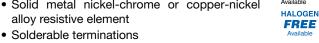
#### **FEATURES**

· Open air design





- All welded construction
- Solid metal nickel-chrome or copper-nickel alloy resistive element
- Very low inductance
- · Material categorization: for definitions of compliance please see www.vishav.com/doc?99912

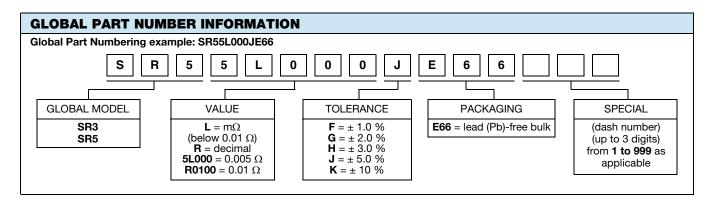


#### Note

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

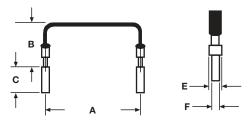
STANDARD ELECTRICAL SPECIFICATIONS						
MODEL	POWER RATING P <sub>70°C</sub> W		TOLERANCE ± %			
SR3	3.0	0.0025 to 0.10	1, 2, 3, 5, 10			
SR5	5.0	0.0025 to 0.05	1, 2, 3, 5, 10			

TECHNICAL SPECIFICATIONS						
PARAMETER	UNIT	SR RESISTOR CHARACTERISTICS				
Temperature Coefficient +25°C / -55°C; +25°C / +125°C	ppm/°C	$\pm$ 400 = 0.0025 $\Omega$ to 0.0199 $\Omega$ ; $\pm$ 300 = 0.02 $\Omega$ to 0.049 $\Omega$ ; $\pm$ 250 = 0.05 $\Omega$ to 0.99 $\Omega$ ; $\pm$ 200 = 0.1 $\Omega$ and above				
Operating Temperature Range	°C	-65 to +275				
Maximum Continuous Current	Α	(P/R) <sup>1/2</sup>				





## **DIMENSIONS** in inches [millimeters]



MODEL	DIMENSIONS in inches [millimeters]					
WODEL	Α	В	С	E	F	
SR3	0.600 + 0.040/- 0.020 [15.24 + 1.020/- 0.508]	1.0 maximum [25.4 maximum]	0.125 ± 0.030 [3.18 ± 0.762]	0.065 + 0.010/- 0.005 [1.65 + 0.254/- 0.127]	0.040 ± 0.002 [1.02 ± 0.051]	
SR5	0.800 + 0.040/- 0.020 [20.32 + 1.020/- 0.508]					

### **MATERIAL SPECIFICATIONS**

Element: nickel-chrome or copper-nickel alloy depending

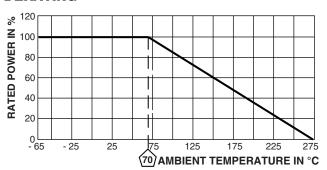
on resistance value

Terminals: tinned copper

Encapsulation: none

Marking: none

### **DERATING**



PERFORMANCE					
TEST	CONDITIONS OF TEST	TEST LIMITS			
Temperature Cycling	-55 °C to +125 °C, 5 cycles, 15 min at each extreme	$\pm$ (2.0 % + 0.0005 $\Omega)$ $\Delta R$			
Low Temperature Storage	-65 °C for 24 h	± (0.5 % + 0.0005 Ω) ΔR			
Mechanical Shock	100 g's for 11 ms, 5 pulses	± (0.2 % + 0.0005 Ω) ΔR			
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± (0.2 % + 0.0005 Ω) ΔR			
Load Life	1000 h at rated power, +70 °C, 1.5 h "ON", 0.5 h "OFF"	± (2.75 % + 0.0005 Ω) ΔR			
Resistance to Solder Heat	+260 °C solder, 10 s to 12 s dwell	± (0.2 % + 0.0005 Ω) ΔR			
Short Time Overload	5x rated power for 5 s	± (1.25 % + 0.0005 Ω) ΔR			
Damp Heat	103B of MIL 202F and test condition "D", humidity chamber per 1300 h	$\pm$ (0.5 % + 0.0005 $\Omega$ ) $\Delta R$ no mechanical damage			



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