## **RS Style Wirewound Fuse Resistor**

Vishay Dale



## Fast Acting, Molded Styles **Custom Designed For Your Application**



#### **FEATURES**

Low temperature coefficient (down to 30 ppm/°C)



- High temperature silicone molded package (derated to 200 °C)
- · Performs function of resistor and series fuse and provides predictable fusing times
- Complete welded construction
- · No flaming or distortion of unit under fusing conditions
- Ideal for Squib circuit applications and protection of semi-conductor devices
- · Negligible noise and voltage coefficient

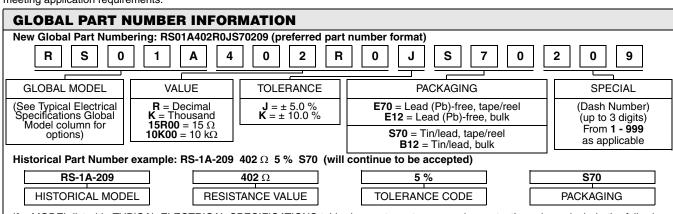
#### TYPICAL ELECTRICAL SPECIFICATIONS

The following are offered as examples of reliable designs. Hundreds of possible combinations are available for meeting your requirements. Contact factory by using email address in the footer of this page, for assistance. Higher wattages available.

GLOBAL MODEL	HISTORICAL MODEL	FUSING PARAMETERS		RESISTANCE	1.0 W CONTINUOUS POWER (1)	
		FUSING CURRENT Amperes	TYPICAL FUSING TIME Milliseconds	RANGE $\Omega$ ± 5 %, ± 10 % Available	CONTINUOUS CURRENT A	$\begin{array}{c} \textbf{CROSSOVER} \\ \textbf{VALUE} \\ \Omega \end{array}$
RS01A209	RS-1A-209	0.5	4	49 - 500	0.10	100.0
RS01A118	RS-1A-118	1.0	9	6.8 - 185	0.25	16.0
RS01A212	RS-1A-212	1.25	8	4.7 - 107	0.30	11.11
RS01A213	RS-1A-213	1.5	15	3.5 - 68	0.35	8.16
RS01A143	RS-1A-143	2.0	15	2.2 - 35	0.40	6.25
RS01A214	RS-1A-214	2.5	23	1.7 - 23	0.45	4.94
RS01A162	RS-1A-162	3.0	48	1.1 - 12	0.55	3.31
RS01A208	RS-1A-208	4.0	47	0.72 - 6.44	0.75	1.78
RS01A207	RS-1A-207	6.0	70	0.35 - 2.17	1.0	1.0
RS01A215	RS-1A-215	8.0	48	0.29 - 1.61	1.25	0.64
RS01A173	RS-1A-173	10.0	50	0.23 - 1.16	1.50	0.44
RS01A216	RS-1A-216	15.0	35	0.19 - 0.82	1.75	0.33
RS01A217	RS-1A-217	20.0	46	0.12 - 0.42	2.0	0.25

#### Note:

Be aware that the inherent compromise involved between resistive and fusing functions sometimes makes certain exact combinations unattainable. However, in nearly all cases, this does not prevent the production of a functional, reliable fuse resistor thoroughly capable of meeting application requirements.



If a MODEL listed in TYPICAL ELECTRICAL SPECIFICATIONS table does not meet your requirements, then please include the following information. It will enable us to choose the best design for your application.

1. Operating wattage or current, ambient temperature and required resistance stability. (%  $\Delta R/1000$  hours.)

2. Fusing wattage or current and maximum "blow" time. Also, minimum "blow" time, if applicable.

- 3. Nominal resistance and maximum allowable resistance tolerance, (5 % to 10 % preferred).
- Maximum allowable physical size.
- 5. Voltage to be interrupted.
- 6. Frequency of power source, wave form and a brief description of your application.

<sup>(1)</sup> The Continuous Current Rating applies only to values equal to or less than the Crossover Value. The Continuous Power Rating applies only to values equal to or higher than the Crossover Value.

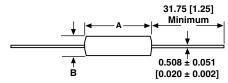


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### **DIMENSIONS** in millimeters [inches]



MODEL	А	В	
1.0 W	10.72 ± 0.381 [0.422 ± 0.015]	2.79 ± 0.381 [0.110 ± 0.015]	

TECHNICAL SPECIFICATIONS				
PARAMETER	UNIT	TYPICAL WIREWOUND FUSE RESISTOR CHARACTERISTICS		
Resistance Tolerance	± %	3, 5, 10		
Temperature Coefficient	ppm/°C	90 for 0.1 $\Omega$ thru 0.99 $\Omega$ ; 50 for 1.0 $\Omega$ thru 9.9 $\Omega$ ; 30 for 10 $\Omega$ and above		
Power Rating	W	1.0 standard, higher power ratings available		
Dielectric Strength	V <sub>AC</sub>	500		
Insulation Resistance	ΜΩ	1000 minimum dry		
Fusing Times	s	0.001 to 1.0		
Minimum Fusing Current	А	Approximately 4 times the continuous operating current obtainable on some designs. Larger ratios produce better designs.		
Terminal Strength	lb	5 minimum		
Solderability	-	Terminals are 60/40 electro tin plated to facilitate soldering		

#### **MATERIAL SPECIFICATIONS**

**Element:** Copper-nickel alloy or nickel-chrome alloy, depending on resistance value

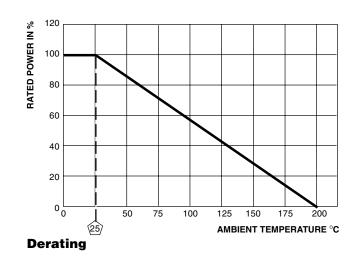
Core: Alumina ceramic

Encapsulant: Thermoset silicone mold compound

End Caps: Stainless steel

Terminals: Tinned copperweld

Part Marking: DALE, Model, Value, Tolerance, Date Code



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