



## 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 sufficient fusing conditions (contact factory for details)
- Ideal for squib circuit applications and protection of semi-conductor devices
- Negligible noise and voltage coefficient
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



### 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 RANGE Ω	TOLERANCE ± %	1.0 W CONTINUOUS POWER (1)	
		FUSING CURRENT A	TYPICAL FUSING TIME ms			CONTINUOUS CURRENT A	CROSSOVER VALUE Ω
RS01A...209	RS-1A-209	0.5	4	49 to 500	5, 10	0.10	100.0
RS01A...118	RS-1A-118	1.0	9	6.8 to 185	5, 10	0.25	16.0
RS01A...212	RS-1A-212	1.25	8	4.7 to 107	5, 10	0.30	11.11
RS01A...213	RS-1A-213	1.5	15	3.5 to 68	5, 10	0.35	8.16
RS01A...143	RS-1A-143	2.0	15	2.2 to 35	5, 10	0.40	6.25
RS01A...214	RS-1A-214	2.5	23	1.7 to 23	5, 10	0.45	4.94
RS01A...162	RS-1A-162	3.0	48	1.1 to 12	5, 10	0.55	3.31
RS01A...208	RS-1A-208	4.0	47	0.72 to 6.44	5, 10	0.75	1.78
RS01A...207	RS-1A-207	6.0	70	0.35 to 2.17	5, 10	1.0	1.0
RS01A...215	RS-1A-215	8.0	48	0.29 to 1.61	5, 10	1.25	0.64
RS01A...173	RS-1A-173	10.0	50	0.23 to 1.16	5, 10	1.50	0.44
RS01A...216	RS-1A-216	15.0	35	0.19 to 0.82	5, 10	1.75	0.33
RS01A...217	RS-1A-217	20.0	46	0.12 to 0.42	5, 10	2.0	0.25

#### Notes

- (1) 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.
- 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.

### GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: RS01A402R0JS70209



GLOBAL MODEL	VALUE	TOLERANCE	PACKAGING	SPECIAL
(see Typical Electrical Specifications Global Model column for options)	R = decimal 15R00 = 15 Ω	J = ± 5.0 % K = ± 10.0 %	E70 = lead (Pb)-free, tape/reel E12 = lead (Pb)-free, bulk  S70 = tin/lead, tape/reel B12 = tin/lead, bulk	(dash number) (up to 3 digits) From 1 to 999 as applicable

Historical Part Numbering example: RS-1A-209 402 Ω 5 % S70

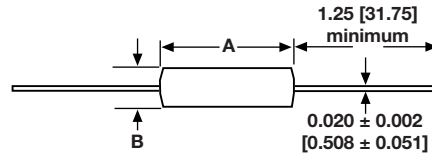


If a MODEL listed in TYPICAL ELECTRICAL SPECIFICATIONS table does not meet your requirements, then please include the following information. It will enable us to choose the best design for your application.

1. Operating wattage or current, ambient temperature and required resistance stability. (% ΔR/1000 h)
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).
4. Maximum allowable physical size.
5. Voltage to be interrupted.
6. Frequency of power source, wave form and a brief description of your application.



**DIMENSIONS** in inches [millimeters]



MODEL	A	B
RS01A...xxx	0.422 ± 0.015 [10.72 ± 0.381]	0.110 ± 0.015 [2.79 ± 0.381]

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	TYPICAL WIREWOUND FUSE RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 30 for 10 Ω and above; ± 50 for 1.0 Ω thru 9.9 Ω; ± 90 for 0.1 Ω thru 0.99 Ω
Power Rating	W	1.0 standard, higher power ratings available
Dielectric Strength	V <sub>AC</sub>	500
Insulation Resistance	MΩ	1000 minimum dry
Fusing Times	s	0.001 to 1.0
Minimum Fusing Current	A	Approximately 4 times the continuous operating current obtainable on some designs. Larger ratios produce better designs.
Terminal Strength	lb	5 minimum

**MATERIAL SPECIFICATIONS**

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

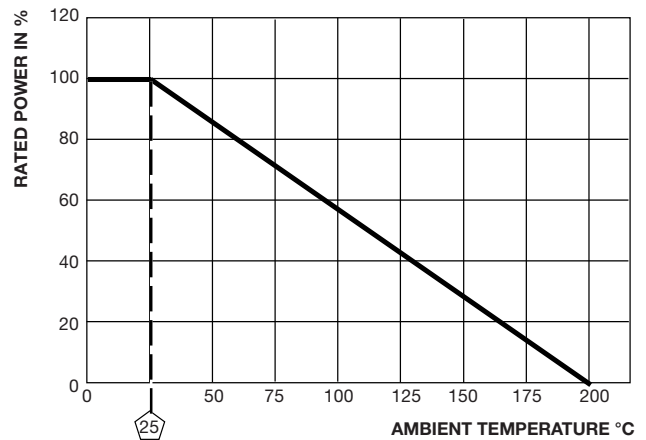
**Core:** alumina ceramic

**Encapsulant:** thermoset silicone mold compound

**End caps:** stainless steel

**Terminals:** tinned copperweld

**Part marking:** Dale, model, value, tolerance, date code



**Derating**



## Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.