

## Features

- Formerly a Riedon™ product
- Resistances from 0.005  $\Omega$  to .10  $\Omega$
- Resistance tolerances as low as  $\pm 1\%$
- Power rating: 1, 3 or 5 watts
- Resistance wire TCR as low as  $\pm 20$  PPM/ $^{\circ}\text{C}$
- For current sensing and shunt applications
- All welded construction
- Low inductance (<10 nH)
- Economical bare metal element
- RoHS compliant\*

## MS Series – Riedon™ Bare Metal Element Resistors by Bourns

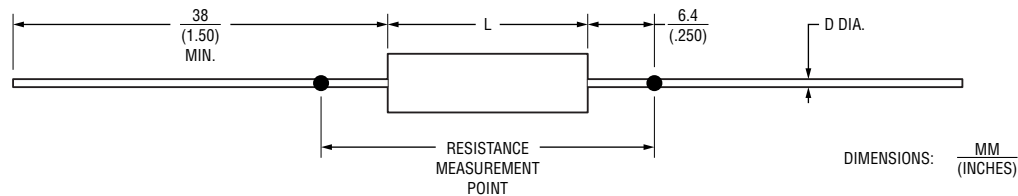
### Specifications

Bourns Model Number	Power Rating @ 85 $^{\circ}\text{C}$ (W)	Resistance Range ( $\Omega$ ) <sup>1</sup>	Available Tolerances	TCR (PPM/ $^{\circ}\text{C}$ )	Operating Temperature ( $^{\circ}\text{C}$ )	Dimensions	
						L	D
MS1	1	0.005 to 0.10	$\pm 1\% / \pm 5\%$	see chart	-55 to +275	+1.0 / -0.5 (+.040 / -.020) (Contact Bourns for other options)	$1.0 \pm 0.05$ (.040 $\pm$ .002)
MS3	3	0.005 to 0.10					$0.8 \pm 0.05$ (.032 $\pm$ .002)
MS5	5	0.005 to 0.05					$1.0 \pm 0.05$ (.040 $\pm$ .002)

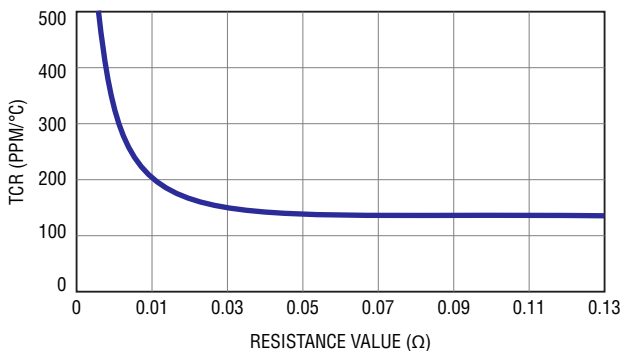
<sup>1</sup> Other resistance values may be available. Please [contact Bourns](#).

Note: Terminal finish 100 % matte tin over copper.

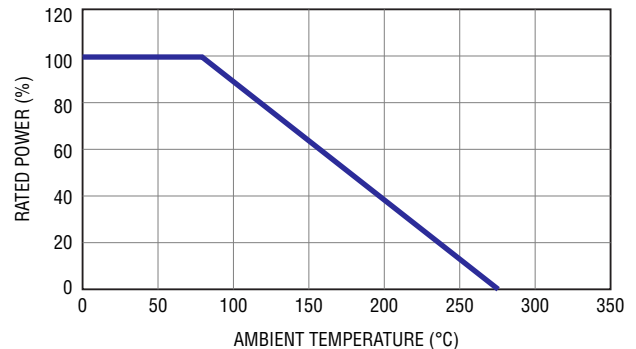
### Product Dimensions



### Temperature Coefficient of Resistance (TCR)



### Derating Curve



**WARNING**  
Cancer and Reproductive Harm  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

\*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at [www.bourns.com/docs/legal/disclaimer.pdf](http://www.bourns.com/docs/legal/disclaimer.pdf).

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### Additional Information

Click these links for more information:



## MS Series – Riedon™ Bare Metal Element Resistors by Bourns

**BOURNS®**

### How To Order

**MS 3 - 0R1 F 1**

Model \_\_\_\_\_

Power Rating (Watts) \_\_\_\_\_

1  
3  
5

Resistance Code \_\_\_\_\_

For values <1K  $\Omega$ , "R" represents decimal point  
(Example: 0R1 = 0.1  $\Omega$ )For values  $\geq$ 1K  $\Omega$ , "K" represents decimal point  
(Example 1K = 1K  $\Omega$ , 1K5 = 1.5K  $\Omega$ )

Tolerance \_\_\_\_\_

F =  $\pm 1\%$   
J =  $\pm 5\%$ 

Internal Use \_\_\_\_\_

(Specific TCR values available upon request.)

### Packaging Specifications

Bulk..... 250 pcs.

**BOURNS®****Americas:** Tel: +1 951-781-5500 • Email: [americus@bourns.com](mailto:americus@bourns.com)**Mexico:** Tel: +52-614-478-0400 • Email: [mexicus@bourns.com](mailto:mexicus@bourns.com)**Asia:** Tel: +886-2-2562-4117 • Email: [asiacus@bourns.com](mailto:asiacus@bourns.com)**EMEA:** Tel: +36 88 885 877 • Email: [eurocus@bourns.com](mailto:eurocus@bourns.com)[www.bourns.com](http://www.bourns.com)

REV. 10/24

Specifications are subject to change without notice.

Users should verify actual device performance in their specific applications.

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