

RESISTOR METAL ELEMENT CURRENT SENSE

RMC SERIES



KEY FEATURES

- Resistances from 0.005 to 0.100 Ohms
- Low Inductance (<10nH)
- Tolerances to $\pm 1\%$
- Resistance Wire TCR: $\pm 20\text{ppm}/^\circ\text{C}$
- For Current Sensing and Shunt Applications
- All Welded Construction
- Economical Bare Metal Element

APPLICATIONS

- Base Station
- Power Inverters
- Current Sensing
- Lightning Pulse Survival

PRODUCT SUMMARY

| PRODUCT SERIES (RMC) | POWER RATING @ 85°C (W) | RESISTANCE (Ω) ¹ | TOLERANCES |
|----------------------|-------------------------|--|---------------------|
| J1 | 1 | 0.005, 0.01, 0.02, 0.025, 0.03, 0.04, 0.05, 0.1 | $\pm 1\% / \pm 5\%$ |
| J2 | 3 | 0.005, 0.01, 0.015, 0.02, 0.025, 0.03, 0.04, 0.05, 0.1 | $\pm 1\% / \pm 5\%$ |
| J3 | 5 | 0.005, 0.01, 0.015, 0.02, 0.025, 0.03, 0.05, 0.1 | $\pm 1\% / \pm 5\%$ |

¹ Contact Factory for other resistances

AVAILABLE OPTIONS (Consult Factory)

- Special Testing Requirements



HOW TO ORDER

| RMC | J2 | U | 0R005 | F | S |
|--------------------------------------|----------------------------------|---|---|------------------------------------|----------|
| RESISTOR METAL ELEMENT CURRENT SENSE | PACKAGE CODE, WATTS | TEMPERATURE COEFFICIENT OF RESISTANCE (TCR) | RESISTANCE | TOLERANCE | PACKING |
| | J1, 1.0W J2, 3.0W J3, 5.0W | U = $\pm 20\text{ppm}/^\circ\text{C}$ | 0R005 = 0.005 Ω (5m Ω) 0R025 = 0.025 Ω (25m Ω) 00R05 = 0.05 Ω (50m Ω) 000R1 = 0.1 Ω (100m Ω) | F = $\pm 1.0\%$ J = $\pm 5.0\%$ | S = Bulk |

Letter denotes decimal place.
R = decimal, "K" 10^3 , "M" 10^6
Remaining 4 digits are significant or placeholders.

For Tin/Lead coated leads, add "- Pb" to part number.

Standard Termination Finish: Matte Tin (Sn)

Example P/N: RMCJ2U0R005FS is Resistor Metal Element Current Sense, 3.0W, $\pm 20\text{ppm}/^\circ\text{C}$, 0.005 Ω , $\pm 1.0\%$, bulk



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MECHANICAL CHARACTERISTICS



| Package Code | | J1 | J2 | J3 |
|---------------------------|--|--|-------------------|-------------------|
| Dimensions Inches [mm] | H | 0.200 [5.08] (Tolerances) $\pm 0.100''$ [$\pm 2.54\text{mm}$] | 1.0 [25.40mm] Max | 1.0 [25.40mm] Max |
| | L (Tolerances) +0.040 / -0.020" [+1.02 / 0.51mm] | 0.450 [11.43mm] | 0.600 [15.24mm] | 0.800 [20.32mm] |
| | D (Tolerances) $\pm 0.002''$ [$\pm 0.05\text{mm}$] | 0.040 [1.02mm] | 0.040 [1.02mm] | 0.040 [1.02mm] |
| | W (Tolerances) +0.010 / -0.005 [+0.25 / -0.13mm] | 0.065 [1.65mm] | 0.065 [1.65mm] | 0.065 [1.65mm] |
| | A (Tolerances) $\pm 0.030''$ [$\pm 0.8\text{mm}$] | 0.125 [3.18mm] | 0.125 [3.18mm] | 0.125 [3.18mm] |

PACKAGING INFORMATION

| Package Code | J1 | J2 | J3 |
|------------------------------------|-----------------|----|----|
| Standard Package Quantities | 250 (Bulk Only) | | |

Moisture Sensitivity Level: MSL-1

This datasheet is subject to change without notice.