

Molded Metal Film Resistors Low Temperature Coefficient, High Precision



The RCME range of metal film resistors represents a significant technical advancement in resistive technology, combining low temperature coefficients with high environmental stabilities, and high frequency performance.

Laser beam trimming gives tolerance accuracies from 0.1 % to 1 %.

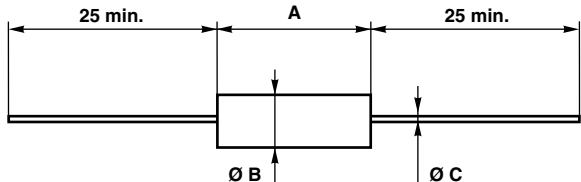
The RCME range effectively bridges the gap that has hitherto existed between the high precision, high stability foil or wirewound technology and conventional film technology.

FEATURES

- 0.125 W to 0.25 W at 85 °C
- Very low temperature coefficient: ± 5 ppm/°C and ± 10 ppm/°C
- Very tight tolerances: down to ± 0.1 %
- Electrical insulation $> 10^7$ M Ω
- Climatic category -65 °C / +155 °C / 56 days
- Excellent frequency performance
- Termination = pure matte tin
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912


RoHS
COMPLIANT

DIMENSIONS in millimeters

					
SERIES	A	Ø B	Ø C	WEIGHT in g	
RCME02	6.5 \pm 0.2	2.4 \pm 0.1	0.6	0.26	
RCME05	10.2 \pm 0.2	3.65 \pm 0.1	0.6	0.46	

STANDARD ELECTRICAL SPECIFICATIONS

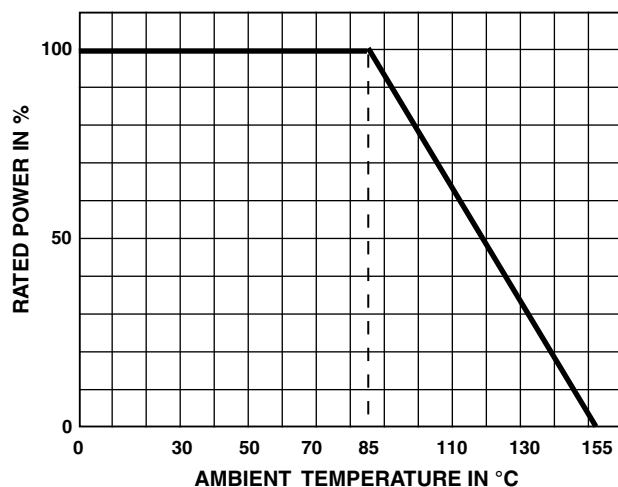
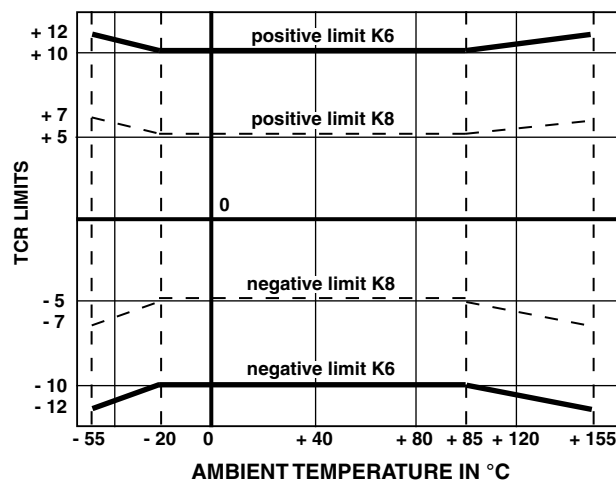
MODEL	RESISTANCE RANGE Ω	RATED POWER $P_{85^\circ\text{C}}$ W	LIMITING ELEMENT VOLTAGE V	TOLERANCE \pm %	TEMPERATURE COEFFICIENT \pm ppm/°C
RCME02	100 to 750K	0.125	300	0.1, 0.2, 0.5, 1	5, 10
RCME05	100 to 750K	0.25	350	0.1, 0.2, 0.5, 1	5, 10

TECHNICAL SPECIFICATIONS

VISHAY SERNICE SERIES	RCME02	RCME05
Nominal Temperature Coefficient in the Range -20 °C to +85 °C	$K6 \leq \pm 10$ ppm/°C $K8 \leq \pm 5$ ppm/°C	
Insulation Resistance	$> 10^7$ M Ω	
Voltage Coefficient	0.0001 %/V	
Environmental Specifications	-65 °C / +155 °C / 56 days	

**PERFORMANCE**

EN140-100		MAXIMUM VALUES AND DRIFTS
TESTS	CONDITIONS	
Load Life at Maximum Category Temperature	1000 h at +155 °C / 0 % of P_n	± 0.15 % or 0.05 Ω
Short Time Overload	2.5 U_n / 5 s Limited to 2 U_m	± 0.01 % or 0.05 Ω
Damp Heat Humidity (Steady State)	56 days with low load	± 0.15 % or 0.05 Ω
Rapid Temperature Change	-55 °C to +155 °C	± 0.05 % or 0.05 Ω
Climatic Sequence	-55 °C to +155 °C severity 1	± 0.15 % or 0.05 Ω Insulation resistance > 10 ⁶ M Ω
Terminal Strength	Pull - twist - 2 bends	± 0.05 % or 0.05 Ω
Vibration	Severity 55B	± 0.05 % or 0.05 Ω
Soldering (Thermal Shock)	+260 °C 10 s	± 0.05 % or 0.05 Ω
Load Life	Cycle 90'/30' 1000 h at P_n at 85 °C	± 0.05 % or 0.05 Ω
Shelf Life	1 year ambient temperature	± 0.03 % or 0.05 Ω

POWER RATING**TEMPERATURE COEFFICIENT**

The temperature coefficient is guaranteed between -20 °C to +85 °C.

The limits of TCR are:

K 8 ± 5 ppm/°C and K 6 ± 10 ppm/°C

For use outside the range -20 °C or +85 °C, limiting values of temperature coefficient are given in the graph above.



MARKING

Printed: Vishay Sfernice trademark, series, style (in full or abbreviated), ohmic value (in Ω), tolerance (in %), temperature coefficient, manufacturing date.

GLOBAL PART NUMBER INFORMATION																
R	C	M	E	0	2		1	3	0	0	1	F	Y	S	1	4
GLOBAL MODEL		SIZE		SPECIAL		OHMIC VALUE				TOLERANCE		TEMPERATURE COEFFICIENT		PACKAGING		
RCME		02 05		As applicable. Contact us.		The first four digits are significant figures and the last digit specifies the number of zeros to follow. R designates decimal point. 13001 = 13 kΩ 33001 = 33 kΩ 220R0 = 220 Ω 1R220 = 1.22 Ω				B = 0.1 % A = 0.2 % D = 0.5 % F = 1 %		Y = K6, 10 ppm/K Z = K8, 5 ppm/K		AM500 = A20 BAG100 = S14 BAG10 = S03		



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