Molded Metal Film Resistors

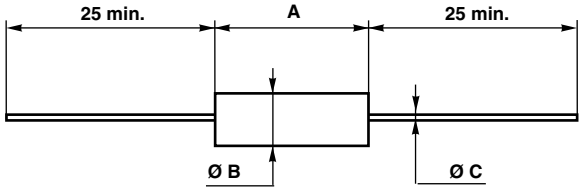
FEATURES

- 0.25 W to 1 W at 70 °C
- NF C 83-230 (RC21U-31U-41U-32)
- CECC 40 100
- High insulation > 10^7 MΩ
- Great mechanical strength
- Termination = Pure matte tin
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

RoHS COMPLIANT

DIMENSIONS in millimeters



SERIES	A max.	Ø B max.	Ø C	WEIGHT in g
RCMM02	6.5 ± 0.2	$2.5^{-0}_{-0.2}$	0.6	0.26
RCMM05	10.2 ± 0.2	3.65 ± 0.1	0.6	0.46
RCMM1	16 ± 0.5	6.2 ± 0.2	0.8	1.30

STANDARD ELECTRICAL SPECIFICATIONS

MODEL	RESISTANCE RANGE Ω	RATED POWER $P_{70\,°C}$ W	LIMITING ELEMENT VOLTAGE V	TOLERANCE ± %	TEMPERATURE COEFFICIENT ± ppm/°C
RCMM02	1 to 332K	0.25	300	2, 5	50, 100
	1 to 332K	0.50	350	2, 5	50, 100
RCMM05	1 to 1M	0.50	350	2, 5	50, 100
RCMM1	1 to 2.26M	1.0	500	2, 5	50, 100

Note

- Undergoes European Quality Insurance System (CECC)

TECHNICAL SPECIFICATIONS

VISHAY SFERNICE SERIES		RCMM02		RCMM05	RCMM1
CECC 83-230		RC21U	RC32	RC31U	RC41U
CECC 40 100-802		BV	-	CV	-
Power Rating at 70 °C		0.25 W	0.50 W	0.50 W	1 W
Resistance Value Range in Relation to Tolerance	± 5 %	1 Ω to 330 kΩ E24	1 Ω to 330 kΩ E24	1 Ω to 1 MΩ E24	1 Ω to 2.2 MΩ E24
	± 2 %	1 Ω to 332 kΩ E48	1 Ω to 332 kΩ E48	1 Ω to 1 MΩ E48	1 Ω to 2.26 MΩ E48
Maximum Voltage		300 V	350 V	350 V	500 V
Critical Resistance		-	245 kΩ	245 kΩ	250 kΩ
Temperature Coefficient	Rated in the range - 55 °C + 155 °C	K2 ≤ ± 100 ppm/°C			
	Typical in the range - 10 °C + 70 °C	≤ ± 50 ppm/°C			
Insulation Resistance (Typical)		≥ 10^7 MΩ (500 V_{DC})			
Voltage Coefficient		≤ ± 10 ppm/V			
Environmental Specifications		-65 °C / +155 °C / 56 days			

Note

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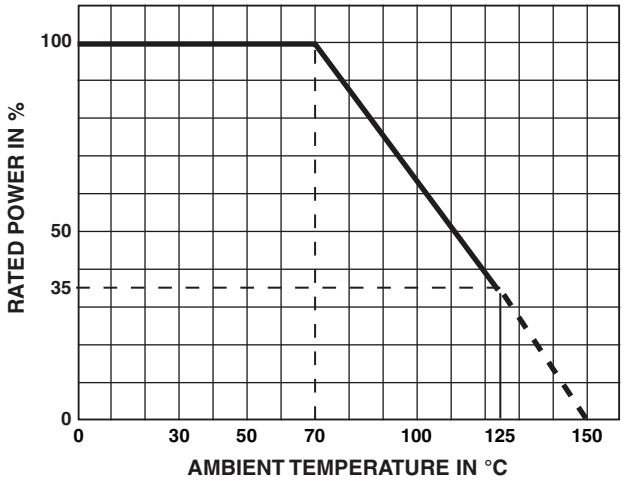
PERFORMANCE			
CECC 40 100 EN 140100			TYPICAL VALUES AND DRIFTS
TESTS	CONDITIONS	REQUIREMENTS	
Load Life at max. Category Temperature	1000 h at 125 °C 35 % of P_n	≤ ± (2 % + 0.1 Ω) Insulation resist. > 1 GΩ	± 0.75 % or 0.05 Ω Insulation resist. 10^6 MΩ
Short Time Overload	2.5 Un / 5 s Limited to 2 Um	≤ ± (0.5 % + 0.05 Ω)	± 0.2 % or 0.05 Ω
Damp Heat Humidity (Steady State)	56 days with low load	≤ ± (2 % + 0.1 Ω) Insulation resist. > 100 MΩ	± 0.5 % or 0.05 Ω Insulation resist. 10^6 MΩ
Rapid Temperature Change	-55 °C +125 °C	≤ ± (0.5 % + 0.05 Ω)	± 0.1 % or 0.05 Ω
Climatic Sequence	-55 °C +125 °C	≤ ± (2 % + 0.1 Ω) Insulation resist. > 100 MΩ	± 0.1 % or 0.05 Ω Insulation resist. 10^6 MΩ
Terminal Strength	Pull - twist - 2 bends	≤ ± (0.5 % + 0.05 Ω)	± 0.05 % or 0.05 Ω
Vibration	10 Hz to 500 Hz	≤ ± (0.5 % + 0.05 Ω)	± 0.05 % or 0.05 Ω
Soldering (Thermal Shock)	+260 °C, 10 s	≤ ± (0.5 % + 0.05 Ω)	± 0.1 % or 0.05 Ω
Load Life	Cycle 90'/30' 1000 h at P_n at 70 °C	≤ ± (2 % + 0.1 Ω) Insulation resist. > 1 GΩ	± 0.5 % or 0.05 Ω Insulation resist. 10^6 MΩ
Shelf Life	1 year ambient temperature	-	± 0.1 % or 0.05 Ω

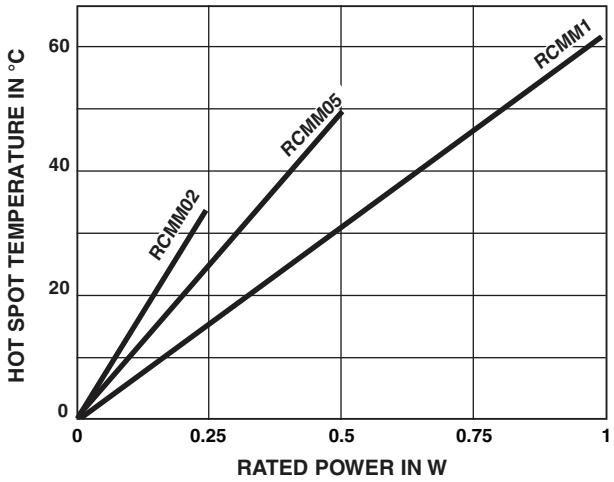
Note

- RC41: 15 s

POWER RATING



TEMPERATURE RISE

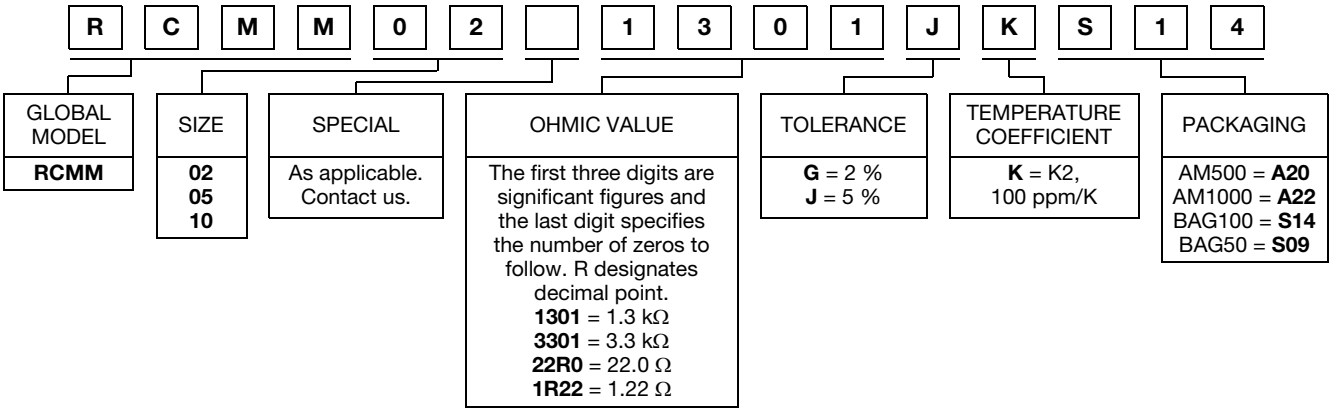


MARKING

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

Due to lack of space RCMM02 is printed MM02.

GLOBAL PART NUMBER INFORMATION



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