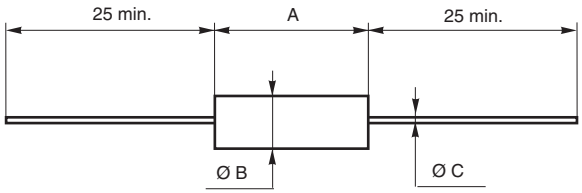
Molded Metal Film High Ohmic Value Resistors

FEATURES

- 0.125W to 0.5W at 70°C
- NF C 83-230
- CECC 40 100
- Resistance range: 300kΩ to 50MΩ
- Good initial precision: up to ± 1%
- High stability
- Accurate dimensions
- Good insulation
- Limiting element voltages: 500V, 800V and 1200V

DIMENSIONS in millimeters



DIMENSIONS / SERIES	A	Ø B	Ø C	UNIT WEIGHT IN g.
RCMX02	6.5 ± 0.2	$2{,}5\ ^{-0}_{-0.2}$	0.6	0.26
RCMX05	10.2 ± 0.2	3.65 ± 0.1	0.6	0.46
RCMX1	16 ± 0.5	6.2 ± 0.2	0.8	1.30

TECHNICAL SPECIFICATIONS

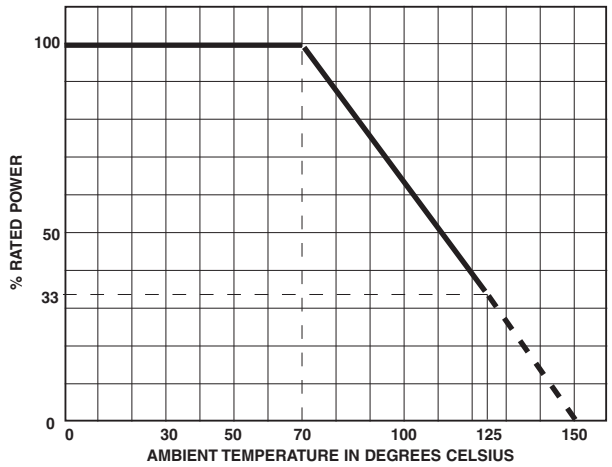
VISHAY SFERNICE SERIES	RCMX02	RCMX05	RCMX1
NF C / CECC 83-230	RS80	RS81	RS82
Power Rating at 70°C	0.125W	0.250W	0.500W
Resistance Value Range	300kΩ to 10MΩ	1MΩ to 20MΩ	2MΩ to 50MΩ
Tolerance and Associated Series	± 1% E96	± 1% E96	± 5% E24
Maximum Voltage	500V	800V	1200V
Critical Resistance	2MΩ	2.55MΩ	2.87MΩ
Temperature Coefficient Rated in the Range – 55°C + 125°C	K3 ≤ ± 50ppm/°C		
Insulation Resistance (Typical)	≥ 10^7MΩ (500VDC)		
Voltage Coefficient	≤ 10ppm/Volt		
Environmental Specifications	– 65°C/+ 155°C/10 days		

Undergoes European Quality Insurance System (CECC) in ohmic value range 300kΩ - 2,2 MQ

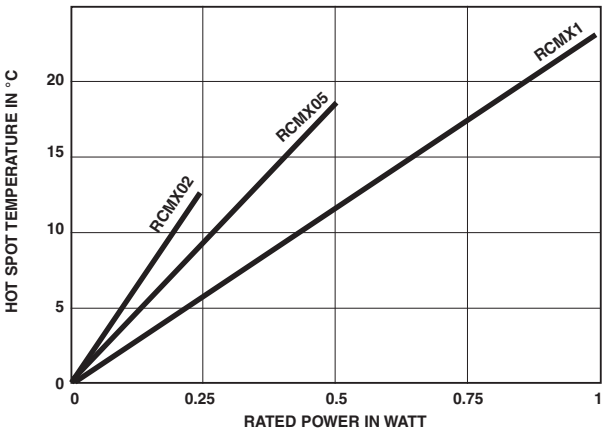
PERFORMANCE

NF C 83-230 - CECC 40 100			TYPICAL VALUES AND DRIFTS
TESTS	**CONDITIONS**	**REQUIREMENTS**	
Load Life at max. Category Temperature	1000 h at 125°C 33% of Pn	≤ ± 1% Insulation resist. >1GΩ	± 2% at 1000 h Insulation resist. 10^6MΩ
Short Time Overload	2.5Um/5s limited to 2Un	≤ ± 0.25%	± 0.5%
Damp Heat Humidity (Steady State)	10 days with low load	≤ ± 1% Insulation resist. >10^2MΩ	± 1.5%
Rapid Temperature Change	– 55°C + 125°C	≤ ± 0.25%	± 0.25%
Climatic Sequence	– 55°C + 125°C severity 1	≤ ± 1% Insulation resist. > 100MΩ	± 1% Insulation resist. 10^6MΩ
Terminal Strength	Pull - Twist - 2 bends	≤ ± 0.25%	± 0.05%
Vibration	10 to 500Hz	≤ ± 0.25%	± 0.05%
Soldering (Thermal Shock)	+ 260°C 10s	≤ ± 0.25%	± 0.1%
Load Life	cycle 90'/30' 1000h at Pn at 70°C	≤ ± 1% Insulation resist. > 1GΩ	± 0.5% Insulation resist. 10^6MΩ
Shelf Life	1 year ambient temperature	–	± 0.25%

POWER RATING CHART



TEMPERATURE RISE



PRACTICAL OPERATING TOLERANCES

After 1000 hours load life at rated power 90'/30' cycles + 70°C ambient temperature, the typical total drifts, measured at + 70°C, are as follows :
Typical total drift = drift due to T.C. (K3) + life drift 0.5%.
Maximum deviation from rated ohmic value including ±1% manufacturing tolerance ≤ 1.5%.

MARKING

Printed: VISHAY SFERNICE trademark, series, style, ohmic value (in Ω), tolerance (in %), temperature coefficient, manufacturing date. **Due to lack of space RCMX02 is printed MX02.**

ORDERING INFORMATION

RCMX	**02**		**10MΩ**	**± 5%**	**K3**	
SERIES	STYLE	SPECIAL DESIGN Method N° Optional	OHMIC VALUE	TOLERANCE	TEMPERATURE COEFFICIENT	PACKAGING Optional

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