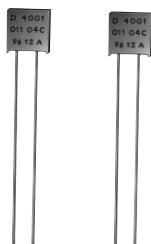


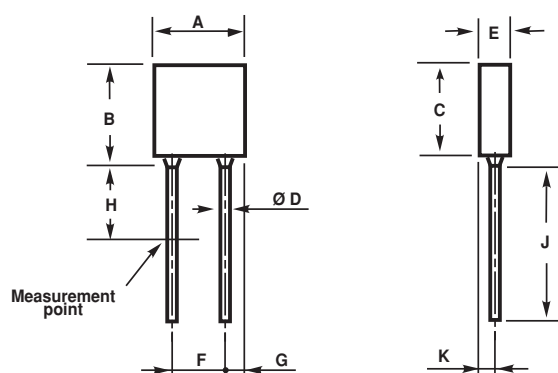


Very High Precision, Very High Stability, High Reliability Resistors, Bulk Metal[®] Foil



Due to the unique performance of the Bulk Metal[®] Foil resistive elements, these resistors are very well adapted to high reliability applications.

DIMENSIONS in millimeters



FEATURES

Four variants are available, two reliability levels are proposed:

- Level B for serialized components
- Level C without serialization
- ESA/SCC 4001

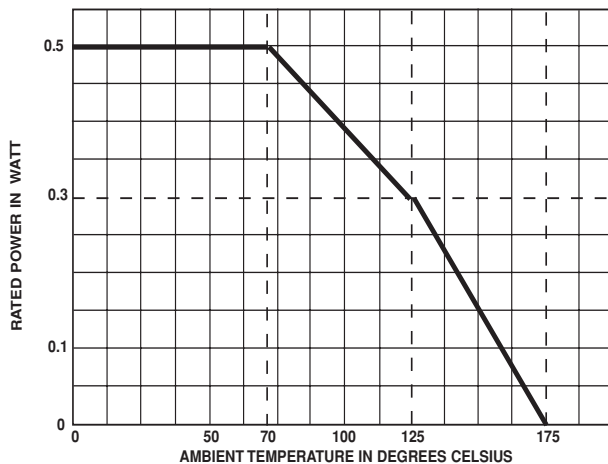
DIM.	SERIES	RCK HR 02	
		VARIANTS	DIM. IN mm
			MIN. MAX.
A		—	— 7.5
B		—	— 8
C		—	— 7.5
ØD		03 - 04 - 07 - 08	0.55 0.65
E		—	— 2.5
F		03 - 07	4.8 5.35
		04 - 08	3.55 4.1
G		03 - 07	1 1.5
		04 - 08	1.6 2.1
H		—	4 6
J		03 - 04	6 —
		07 - 08	20 —
K		—	— 1.5

ELECTRICAL SPECIFICATIONS

VISHAY SFERNICE DESIGNATION	RCK HR
Qualified Designation	RNC 90
ESA Specification	4001/011
Power Rating at + 70°C	0.5W
Limiting Element Voltage	300V
Temperature Coefficient	± 5ppm/°C (– 55°C + 125°C) ± 10ppm/°C θ>+ 125°C
Ohmic Value Range	33Ω to 100kΩ
Tolerance	± 0.02% to ± 1%
Temperature Limits	– 55°C to + 175°C
Dielectric Voltage	425VRMS
Soldering Temperature	260°C, immersion 10 s at a distance of no less than 1.6mm from the device body

PERFORMANCE

TESTS	CONDITIONS	REQUIREMENTS		TYPICAL VALUES AND DRIFTS
		ESA / SCC 4001/11	MIL-R-55182E	
Short Time Overload	$U = \sqrt{2 \cdot R_n} / 5s$ $U_{max.} < 450V$	$\pm 0.05\%$	$\pm 0.05\%$	$\pm 0.002\%$
Rapid Temperature Change	$-55^\circ C/+175^\circ C$ 5 cycles CEI 66-2-14 Test Na	$\pm 0.05\%$	$\pm 0.05\%$	$\pm 0.002\%$
Terminal Strength	CEI 68-2-21 Test Ua, Test U21 (Tensile)	$\pm 0.02\%$	$\pm 0.02\%$	$\pm 0.001\%$
Soldering (Thermal Shock)	$260^\circ C / 10 s$ CEI 68-2-20 A Test Tb (met.1A)	$\pm 0.02\%$	$\pm 0.02\%$	$\pm 0.002\%$
Vibration	10Hz to 2000Hz 1.5mm or 20 g 6 hours (met. B4) CEI 68-2-6 Test Fc	$\pm 0.02\%$	$\pm 0.02\%$	$\pm 0.002\%$
Humidity (Steady State)	56 days 95% H.R. $40^\circ C$ CEI 68-2-3	NA	$\pm 0.05\%$ Insulation resistance $> 10^2 M\Omega$	$\pm 0.003\%$ Insulation resistance $> 10^4 M\Omega$
Climatic Sequence	CEI 67-2-1 / CEI 68-2-2 CEI 67-2-13 / CEI 68-2-30	$\pm 0.05\%$	$\pm 0.05\%$	$\pm 0.003\%$ Insulation resistance $> 10^4 M\Omega$
Load Life	1000 hours P_n at $+70^\circ C$ $90' / 30'$ cycle	$\pm 0.05\%$	—	$\pm 0.005\%$
High Temperature Exposure	1000 hours at $+175^\circ C$ CEI 68-2-20A Test B	$\pm 0.05\%$	$\pm 0.05\%$	$\pm 0.01\%$

POWER RATING CHART**TOLERANCE CODE**

Tolerance $\pm \%$	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1
Code SCC	E	L	P	W	B	C	D	F

PACKAGING

Resistors are packed in sealed blisters, up to 10 resistors per blister pack.

The following information is printed on the blister pack:

- order reference
- date code
- ESA specification reference
- quality level
- review number.

MARKING

Ohmic value is printed on the top side, 3 to 6 digits are used, R stands for ohm and K for kilo ohm.

The front side is printed as follows:

- tolerance (letter code)
 - ESA specification reference
 - quality level
 - variant
 - manufacturing date (2 digits for the year, 2 digits for the week)
 - a letter to differentiate manufacturing sequence.
- ESA logo and serialization number are printed on the back side.

ORDERING INFORMATION

RCK HR MODEL	02 VERSION	10k Ω OHMIC VALUE	$\pm 1\%$ TOLERANCE		B1 QUALITY LEVEL	
	02		$\pm 0.005\%$	$\pm 0.1\%$	B1	C1
	02A		$\pm 0.01\%$	$\pm 0.2\%$	B2	C2
			$\pm 0.02\%$	$\pm 0.5\%$	B3	C3
			$\pm 0.05\%$	$\pm 1\%$		