PRODUCT DATASHEET

BNR

Low-resistance SMD wirewound resistors

Product overview

Rated power

1 / 2 W

Series resistance coverage

6–1000 mΩ



Features

- Tight tolerance and low TCR
- Suitable for automated surface mounting
- Low resistance and low inductance

Applications

- Meters and instruments
- Electronic weighing equipment
- Electronic devices

Electrical specifications

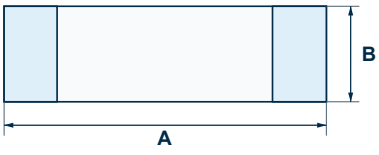
Reference standard GB/T 5729-2003

Model	Power (W)	Resistance (mΩ)	Tolerance	TCR (ppm/°C)
BNR2512	1	7–500	±1% / ±5%	±50
BNR4510	2	6–1000	±1% / ±5%	±50

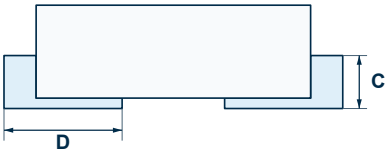
Package outline dimensions

Dimensions in mm · Views not to scale

Top view

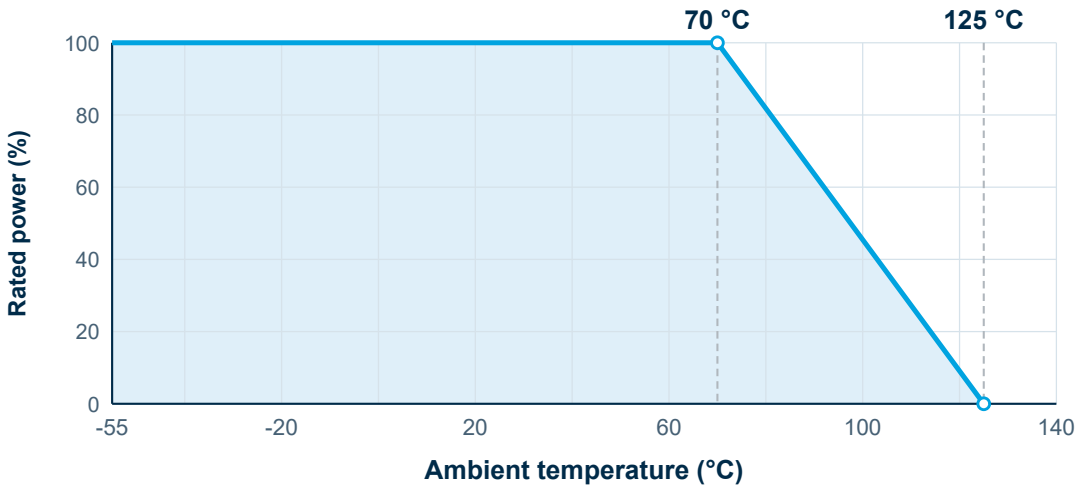


Side view



Model	A	B	C	D
BNR2512	6.4	3.18	2.41	1.56
BNR4510	11.56	6.98	2.41	2.54

Power derating curve



−55 – 70 °C	Rated power is 100% across this interval.
70 – 125 °C	Rated power decreases linearly to 0% at 125 °C.

Inspection methods and requirements

Test item	Requirement	Test method
Solderability	≥ 95%	235 ± 5 °C, 2 ± 0.5 s
Temperature coefficient	±50 ppm/°C	−55 to 20 °C, 20 to 125 °C
Steady-state damp heat	|ΔR| ≤ 0.5%R + 0.05 Ω	40 ± 2 °C, 93 ± 3% RH
Vibration	|ΔR| ≤ 0.5%R + 0.05 Ω	10–1000 Hz, 0.75 mm, 200 m/s²
Shock	|ΔR| ≤ 0.5%R + 0.05 Ω	1000 m/s², 6 ms
Overload	|ΔR| ≤ 0.5%R + 0.05 Ω	2.5V*, 5 s
Endurance at 70 °C	|ΔR| ≤ 1%R + 0.05 Ω	70 °C, P_n, 1000 h

* The overload voltage notation is unclear and requires confirmation.

P_n is rated power and ΔR is the change in resistance after the test.