

Low Resistance Power Resistors

Lowest Ohmic Value Resistor (BWL) Minimise Power Consumption

▶ Preview

In response to demand for more energy efficient products, Token Electronics has expanded its current sensing resistors offering with the launch of the BWL series, its lowest ohmic value resistor, to minimise power consumption.

The BWL series has been designed for current sensing in power electronic systems and the resistors are available in 0.5W to 10W power ratings, with a wide ohmic range starting from as low as 0.005Ω.

Products in the economical, low-inductance BWL series are axial leads with high temperature mold compound, making them well-suited to the industry trend and are ideal for all types of current sensing applications including switching and linear power supplies, instruments and power amplifiers

In addition, the BWL series utilizes metal strip technology, essential for those involved in constructing devices and circuits for the detection of currents.

Token's BWL standard series is lead-free and RoHS compliant and can be a replacement for Vishay, IRC, KAO, Panasonic current sense devices with more competitive price and short lead time. Contact us with your specific needs.



▶ Material

- Terminals: Tinned copper.
- Element: Self-supporting nickel-chrome alloy.
- BWL metal strip technology utilizes manganin.
- Encapsulation: High temperature mold compound.

▶ Applications

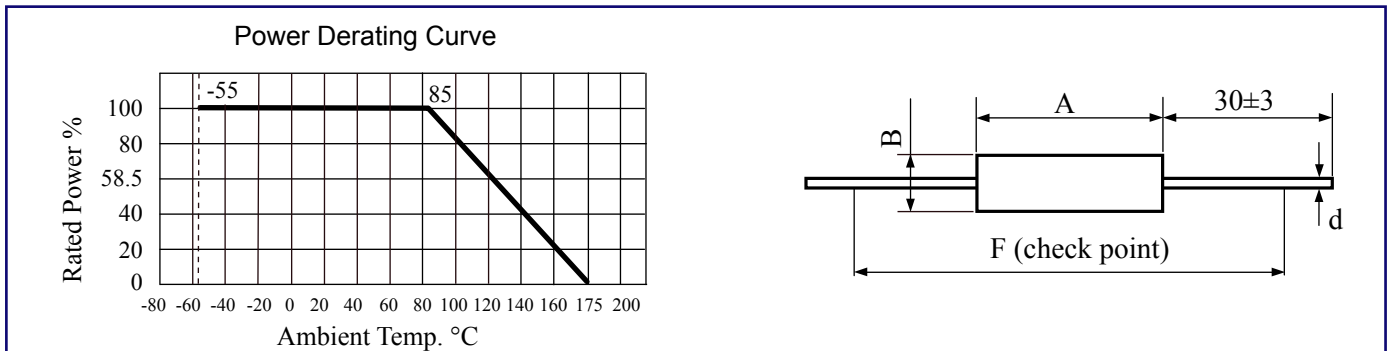
- Switching and linear power supplies.
- Notebook power management.
- Power amplifiers.
- Instruments.

▶ Features

- Low inductance.
- Excellent load life stability.
- Low temperature coefficient.
- Cooler operation for high power to size ratio.
- Proprietary processing technique produces extremely low resistance values.

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Technical Specifications & Dimensions

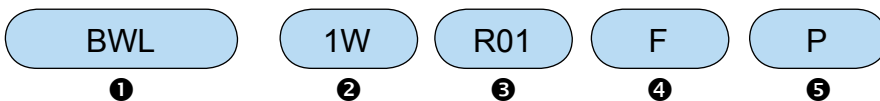


Type	Rated Watts at 25°C (W)	Resistance Range (Ω)		Tolerance	Dimensions (mm)			
		Min	Max		A±0.25	ΦB±0.25	Φd	F
BWL-0.5	0.5	0.01	1	±1% ±2% ±5%	7.0	3.0	0.8	27.0
BWL-1	1.0	0.005	2		11.0	3.0	0.8	31.0
BWL-3	3.0	0.005	2		15.0	5.2	0.8	34.0
BWL-4	4.0	0.005	5		18.0	6.5	0.8	38.0
BWL-5	5.0	0.005	1		24.0	8.4	1.0	44.0
BWL-10	10.0	0.01	1		46.5	10.0	1.0	66.0

Electrical Performance

Test Items	Test Conditions	Specifications
Operating Temp. Range		-55°C ~ 175°C
Insulation Resistance	500V	>1GΩ
Dielectric Withstanding Voltage	500V AC 1 Min.	ΔR ≤ ±0.1%R
Load Life	70°C on~off cycle 1000 Hrs.	ΔR ≤ ±1%R
Moisture-Proof Load Life	40°C 95% RH on~off cycle 21 Hrs.	ΔR ≤ ±0.2%R
Resistance to soldering heat	350°C, 3.5s	ΔR ≤ ±0.1%R
Solderability	235±5°C, 5s(solder bath method)	IEC68-2-20(1968)

How to Order



① Part Number

② Power Rating (W)

③ Resistance

Code	Resistance
R01	0.01Ω
R1	0.1Ω
1R	1Ω

④ Resistance Tolerance

Code	Resistance Tolerance
F	±1%
G	±2%
J	±5%

⑤ Packaging: P (Bulk)

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