



The DNA of tech.®

WSBE - Power Metal Strip® Shunt Resistor

AEC-Q200 Power Shunt Resistor with Extremely Low TCR for High Precision and Ease of Design

AUTOMOTIVE
GRADE

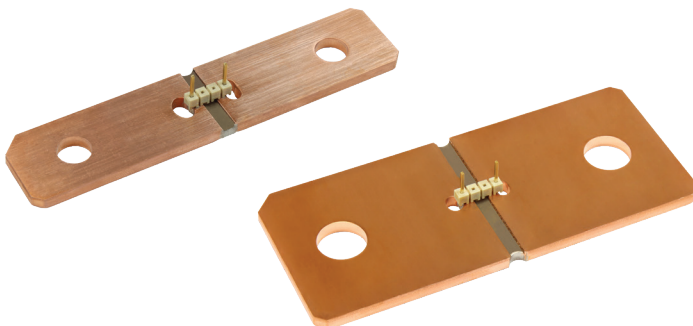
ADVANTAGE



The WSBE series offers designers ease of implementation by eliminating the need for TCR compensation, allowing for scalable platform designs and reduced component counts.

KEY PRODUCT FEATURES

- ✓ AEC-Q200 qualified power shunt with high amperage handling capacity (up to 1815 A)
- ✓ High accuracy ($\pm 0.5\%$) and incredible stability (10 ppm/°C)
- ✓ Multiple connection options for ease of integration



RESOURCES



MARKETS AND APPLICATIONS



MOBILITY

- Battery Management
- SiC Modules
- Current Sensing
- Electric Vehicle Charging



INDUSTRIAL

- Voltage Monitoring

DID YOU KNOW?

The patented technology of Vishay's WSBE series Power Metal Strip® shunt resistors reduces the temperature coefficient of resistance (TCR) to < 10 ppm/°C across the entire operating range of -55 °C to 150 °C, not just from 20 °C to 60 °C like some competitors. This creates a temperature stability that eliminates the need for temperature compensation, reducing design complexity and improving system reliability for current measurement.



TECHNICAL SPECIFICATIONS

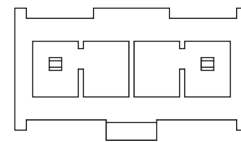
PARAMETER	UNIT	RESISTOR CHARACTERISTICS	
		WSBE8518	WSBE8536
Temperature coefficient	ppm/°C	± 10 for 100 μΩ	± 10 for 50 μΩ
Operating temperature range	°C	-65 to +170	
Thermal EMF	μV/°C	< 1.25	
Inductance	nH	< 5	
Maximum current rating	A	$(P/R)^{1/2}$	

CONNECTION OPTIONS



Voltage sense pins in position 1 and 4, position 2 and 3 are blank.

A Series



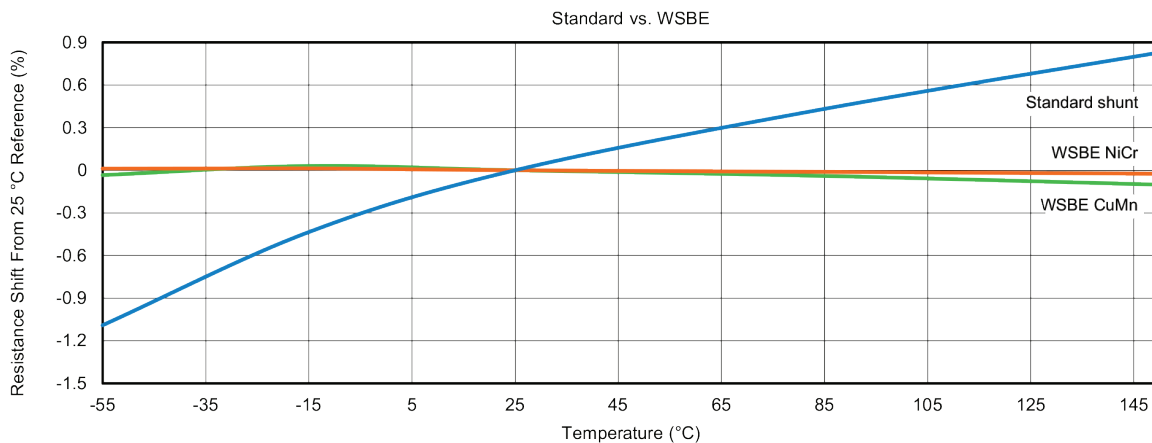
Voltage sense pins in position 1 and 4, position 2 and 3 are blank.

B Series

Connection options are examples. Other configurations available upon request (links to external website)

- [A series connector](#) – Modified with the middle two pins removed
- [B series connector](#) – Modified with the middle two pins removed
- [B series Female connector](#)
- [Connector Specifications Datasheet](#)

TCR COMPARISON



www.vishay.com/doc?30405 - click for more information on TCR and the way it affects your application

Refer to our [Reference design](#) for additional design support for high voltage battery management

Look to the WSBE series for your current sensing needs with Vishay quality, balanced TCR, reduced component counts, and ease of integration with two-point calibration. Please [contact us](#) if you would like to [purchase](#) or [order samples](#).