



Vishay Intertechnology WSBE Power Metal Strip® Shunt Resistors Save Space, Simplify Designs, and Increase Accuracy

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Devices Combine Ultra Low TCR Down to ± 10 ppm/°C, Resistance Down to $15 \mu\Omega$, and Power Ratings to 50 W in 8518 and 8536 Case Sizes

MALVERN, Pa., March 12, 2025 (GLOBE NEWSWIRE) -- Vishay Intertechnology, Inc. (NYSE: VSH) today introduced a new series of AEC-Q200 qualified Power Metal Strip® shunt resistors with industry-low TCR down to ± 10 ppm/°C. For automotive, energy, industrial, and space applications, Vishay Dale [WSBE](#) series devices offer extremely low resistance values down to $15 \mu\Omega$ and high power ratings to 50 W.

The ultra low TCR performance of the devices released today results from a combination of their solid metal resistive element and patented TCR mitigation technology. This unique design results in a mitigated TCR while eliminating the need for temperature compensation and simplifying the calibration needed to a two-point process. It also simplifies the compensation software needed and reduces the number of components required to account for temperature shifts, which saves space and simplifies designs and product development to reduce costs and increase accuracy.

Offered in the 8518 and 8536 case sizes, WSBE series devices feature a proprietary processing technique that produces their extremely low resistance values. Combined with high power ratings and lifetime stability of 1 %, the result is a high current resistor that can handle up to 1825 A with no noticeable resistance shift.

The WSBE series is designed for current measurement in battery management systems (BMS), in which it helps eliminate the need for temperature sensing and software calibration during production. The devices are ideal for charging infrastructure for electric (EV) and hybrid electric (HEV) vehicles such as golf carts and motorcycles. Additional applications include energy monitoring and metering systems, large battery systems, battery-backup for UPS, inverters for industrial motor drives and tools, and satellites.

Featuring an all-welded construction, the resistors offer low inductance values of < 5 nH, low thermal EMF down to $< 1.25 \mu\text{V}/^\circ\text{C}$, and an operating temperature range of -65°C to $+170^\circ\text{C}$. The devices are RoHS-compliant, halogen-free, and [Vishay Green](#).

Device Specification Table:

Part number	WSBE8518	WSBE8536
Size	8518	8536
Power rating $P_{70^\circ\text{C}}$	36 W	50 W
Tolerance	$\pm 5\%$	
Resistance range	$30 \mu\Omega$ to $100 \mu\Omega$	$15 \mu\Omega$ to $50 \mu\Omega$
TCR	± 10 ppm/°C	
Temperature range	-65°C to $+170^\circ\text{C}$	
Thermal EMF	$< 1.25 \mu\text{V}/^\circ\text{C}$	

Samples and production quantities of the WSBE series are available now, with a lead time of 30 weeks.

Vishay manufactures one of the world's largest portfolios of discrete semiconductors and passive electronic components that are essential to innovative designs in the automotive, industrial, computing, consumer, telecommunications, military, aerospace, and medical markets. Serving customers worldwide, Vishay is **The DNA of tech.**® Vishay Intertechnology, Inc. is a Fortune 1000 Company listed on the NYSE (VSH). More on Vishay at www.Vishay.com.

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Vishay Twitter feed: <http://twitter.com/vishayindust>

Link to product datasheet:

<http://www.vishay.com/ppg?30424> (WSBE)

Link to product photo:

<https://www.flickr.com/photos/vishay/albums/72177720324327480>

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