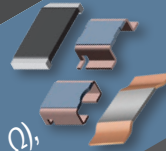


Power Metal Strip[®] Resistors

High Temperature (275 °C),
Low Value (Down to 0.0002 Ω),
Surface-Mount

WSLT



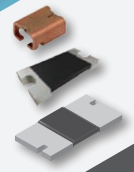
Battery Shunt Resistor, Very Low Value (to 25 μΩ), **High Power** (Up to 50 W), **High Current** (Up to 1414 A Continuous)

WSBS, WSBM, WBP



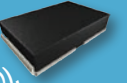
4-Terminal Design Allows
More Accurate Current Sense
Measurement for **Low Values**

WSK, WSK1216



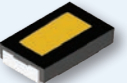
High Power (10 W),
Low Value (Down to 0.001 Ω),
Surface-Mount

WSHP



Molded, High Power (5 W),
Low Value (Down to 0.001 Ω),
Surface-Mount

WSR5



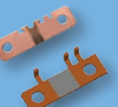
Very High Power (to 10 W),
Low Value (Down to 0.0001 Ω),
Surface-Mount

WSLP



Meter Shunt Resistor, Very Low Value (to 100 μΩ), **High Power** (Up to 12 W), **High Current** (Up to 245 A Continuous)









WSMS














Power Metal Strip® RESISTORS

Focus Products

Series	Power Rating $P_{70\text{ °C}}$	Resistance Value Range	Available Tolerances	TCR	Operating Temp. Range
 WSLP Series (0603 to 2512)	Up to 3.0 W	0.0005 Ω to 0.2 Ω	$\pm 0.5\%$, $\pm 1\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	Very high power (to 3.0 W) and low value (down to 0.0005 Ω); surface-mount				
 WSL0612, WSL1020	1.0 W, 2.0 W	0.00075 Ω to 0.006 Ω	$\pm 0.5\%$, $\pm 1\%$, $\pm 5\%$	Down to ± 150 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	Very high power (to 2.0 W) and low value (down to 0.001 Ω); surface-mount				
 WSLP...18	2.0 W	0.005 Ω to 0.012 Ω	$\pm 1\%$, $\pm 5\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	Very high power (up to 1.0 W) and low value (down to 0.005 Ω); surface-mount				
 WSLF2512	Up to 6.0 W	0.0003 Ω to 0.003 Ω	$\pm 1\%$, $\pm 5\%$	Down to ± 170 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	Very high power (up to 6.0 W) and low value (down to 0.0003 Ω); surface-mount				
 WSLP2726	Up to 7.0 W	0.0002 Ω to 0.004 Ω	$\pm 1\%$, $\pm 5\%$	± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	Very high power (up to 7.0 W); low value (down to 0.0002 Ω); surface-mount				
 WSLP4026	Up to 7.0 W	0.0002 Ω to 0.004 Ω	$\pm 1\%$, $\pm 5\%$	± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	Very high power (up to 7.0 W); low value (down to 0.0002 Ω); surface-mount				
 WSLP3921	Up to 9.0 W	0.0002 Ω to 0.004 Ω	$\pm 1\%$, $\pm 5\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	Very high power (up to 9.0 W); low value (down to 0.0002 Ω); surface-mount				
 WSLP5931	Up to 15.0 W	0.0001 Ω to 0.003 Ω	$\pm 1\%$, $\pm 5\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	Very high power (up to 10 W); low value (down to 0.0002 Ω); surface-mount				






Series	Power Rating $P_{70\text{ °C}}$	Resistance Value Range	Available Tolerances	TCR	Operating Temp. Range
 WSLT2512	1.0 W	0.01 Ω to 0.5 Ω	$\pm 0.5\%$, $\pm 1\%$	± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +275 $^{\circ}\text{C}$
	High temperature (275 $^{\circ}\text{C}$); low value (down to 0.01 Ω); surface-mount				
 WSLT2010...18	1.0 W	0.01 Ω to 0.5 Ω	$\pm 0.5\%$, $\pm 1\%$	± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +275 $^{\circ}\text{C}$
	High temperature (275 $^{\circ}\text{C}$); high power (1 W); low value (down to 0.01 Ω); surface-mount				
 WSLT2726	3.0 W	0.0003 Ω to 0.005 Ω	$\pm 1\%$, $\pm 5\%$	± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +275 $^{\circ}\text{C}$
	High temperature (275 $^{\circ}\text{C}$); high power; low value; surface-mount; 4-terminal				
 WSLT4026	3.0 W	0.0003 Ω to 0.005 Ω	$\pm 1\%$, $\pm 5\%$	± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +275 $^{\circ}\text{C}$
	High temperature (275 $^{\circ}\text{C}$); high power; low value; surface-mount; 4-terminal				
 WSLT3921	3.0 W	0.0002 Ω to 0.004 Ω	$\pm 1\%$, $\pm 5\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +275 $^{\circ}\text{C}$
	High temperature (275 $^{\circ}\text{C}$); low value (down to 0.0002 Ω); surface-mount				
 WSLT5931	5.0 W	0.0002 Ω to 0.003 Ω	$\pm 1\%$, $\pm 5\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +275 $^{\circ}\text{C}$
	High temperature (275 $^{\circ}\text{C}$); low value (down to 0.0002 Ω); surface-mount				






Series	Power Rating $P_{70\text{ °C}}$	Resistance Value Range	Available Tolerances	TCR	Operating Temp. Range
 WSHM2818	7.0 W	0.001 Ω to 0.2 Ω	$\pm 0.5\%$, $\pm 1\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	High power (7 W); low value (down to 0.001 Ω); surface-mount				
 WSHP2818	10.0 W	0.001 Ω to 0.1 Ω	$\pm 0.5\%$, $\pm 1\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +170 $^{\circ}\text{C}$
	High power (10 W); low value (down to 0.001 Ω); surface-mount				
 WSR5	5.0 W	0.001 Ω to 0.3 Ω	$\pm 0.5\%$, $\pm 1\%$	Down to ± 75 ppm/ $^{\circ}\text{C}$	-65 $^{\circ}\text{C}$ to +275 $^{\circ}\text{C}$
	High power (5 W); low value (down to 0.001 Ω); surface-mount				






Power Metal Strip® RESISTORS

Focus Products

Series	Power Rating $P_{70^\circ\text{C}}$	Resistance Value Range	Available Tolerances	TCR	Operating Temp. Range
 WSKW0612	1.0 W	0.001 Ω to 0.003 Ω	$\pm 1\%$, $\pm 5\%$	Down to ± 75 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Low value (down to 0.001 Ω); surface-mount; 4-terminal					
 WSK1206	0.25 W	0.01 Ω to 0.05 Ω	$\pm 0.1\%$ to $\pm 1\%$	Down to ± 35 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Low value (down to 0.01 Ω); surface-mount; 4-terminal					
 WSK1206...18	0.5 W	0.01 Ω to 0.05 Ω	$\pm 0.1\%$ to $\pm 1\%$	Down to ± 35 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Low value (down to 0.01 Ω); high power (0.5 W); surface-mount; 4-terminal					
 WSK2512	1.0 W	0.0005 Ω to 0.2 Ω	$\pm 0.1\%$ to $\pm 1\%$	Down to ± 35 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Low value (down to 0.0005 Ω); surface-mount; 4-terminal					
 WSK1216	Up to 5 W	Down to 0.0005 Ω	$\pm 1\%$	Down to ± 50 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
High power (up to 5 W); low value (down to 0.005 Ω); surface-mount; 4-terminal					

Series	Power Rating $P_{70^\circ\text{C}}$	Resistance Value Range	Available Tolerances	TCR	Operating Temp. Range
 WSBS8518	36.0 W	50 $\mu\Omega$ to 1000 $\mu\Omega$	$\pm 5\%$	Down to ± 110 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Very low value (50 $\mu\Omega$, 100 $\mu\Omega$, 125 $\mu\Omega$, and 250 $\mu\Omega$ available); high current (849 A)					
 WSBS5216	12.0 W	50 $\mu\Omega$ to 1000 $\mu\Omega$	$\pm 5\%$	Down to ± 200 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Very low value (100 $\mu\Omega$ available); high current (346 A)					
 WSBS8536	50.0 W	25 $\mu\Omega$ to 500 $\mu\Omega$	$\pm 5\%$	Down to ± 150 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Very low value (25 $\mu\Omega$, 50 $\mu\Omega$, 100 $\mu\Omega$, and 125 $\mu\Omega$ available); high current (1414 A)					
 WSBS8518... 14, 20, 34, 35, 40, M3, M4 custom	36.0 W	50 $\mu\Omega$ to 1000 $\mu\Omega$	$\pm 5\%$	Down to ± 10 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Sense pins; plating; M3 / M4 tapped holes; NiCr element with boot design for low RTC; plus many other options					
 WSBM8518	36.0 W	50 $\mu\Omega$ to 500 $\mu\Omega$	$\pm 5\%$	Down to ± 10 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Molded enclosure; very low value (50 $\mu\Omega$, 100 $\mu\Omega$, and 250 $\mu\Omega$ available); high current (849 A)					

Series	Resistance	Voltage Range	Current Range (Continuous)	Current Range (Pulsed)	Operating Temp. Range
 WBP	100 $\mu\Omega$	4 V to 18 V	± 600 A	± 1000 A	-40 $^\circ\text{C}$ to +115 $^\circ\text{C}$
Very low-value (100 $\mu\Omega$) intelligent battery sensor; operates as LIN 2.0 or 2.1 slave					

Series	Power Rating $P_{70^\circ\text{C}}$	Resistance Value Range	Available Tolerances	TCR	Operating Temp. Range
 WSMS5515	Up to 15.0 W	50 $\mu\Omega$ to 1000 $\mu\Omega$	$\pm 5\%$	Down to ± 175 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Very low value (100 $\mu\Omega$, 160 $\mu\Omega$, 200 $\mu\Omega$, 250 $\mu\Omega$, 300 $\mu\Omega$, and 500 $\mu\Omega$ available)					
 WSMS2908	3.0 W	50 $\mu\Omega$ to 1000 $\mu\Omega$	$\pm 5\%$	Down to ± 175 ppm/ $^\circ\text{C}$	-65 $^\circ\text{C}$ to +170 $^\circ\text{C}$
Very low value (100 $\mu\Omega$, 250 $\mu\Omega$, 300 $\mu\Omega$, 430 $\mu\Omega$, and 500 $\mu\Omega$ available); high current (245 A)					



Power Metal Strip[®] Resistors are Optimized for Current Sensing in a Wide Range of Electronic Systems

Advantages of Vishay Power Metal Strip[®] Resistors

- Superior performance in high temperature and pulse applications
- Very high power ratings, up to 50 W
- A wide range of package sizes
- Resistance values from 0.000025 Ω up to 1 Ω
- Tight tolerance available, down to 0.1 %

For the Following Applications

- Automotive controls for body, powertrain, safety, and infotainment
- DC/DC converters, voltage regulation modules, and Li-Ion battery management
- Automotive and industrial battery management
- Electric power metering and large industrial current sensing



Using the WSLP, WSLT, and WSHP series in your automotive applications helps you boost performance and efficiency



Using the WSBS, WSBM, and WSMS series in your metering and battery monitoring applications ensures more accurate results

Useful Links

AEC-Q200
QUALIFIED

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(5-2008)

RoHS
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HALOGEN
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- Power Metal Strip[®] Resistors Gateway Page
www.vishay.com/resistors-fixed/power-metal-strip/
- SMD Pulse Capability Calculator
www.vishay.com/resistors-fixed/power-metal-strip/
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