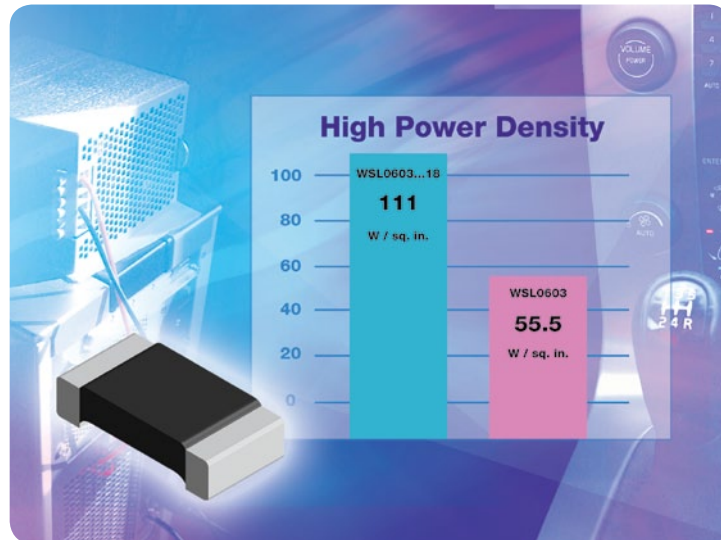


Surface-Mount, High-Power (0.2 W) Power Metal Strip® Resistor



KEY BENEFITS

- 0.2 W rating is double the power capacity of the standard WSL0603 type resistor
- Resistance range of 0.01 Ω to 0.1 Ω
- Low TCR: ± 75 ppm/ $^{\circ}\text{C}$
- High-temperature capacity: 170 $^{\circ}\text{C}$
- Low thermal EMF: < 3 $\mu\text{V}/^{\circ}\text{C}$

APPLICATIONS

- Telecommunications: power management, DC/DC converters
- Computer: DC/DC converters, VRMs, and Li-Ion battery power management
- Automotive electronic controls: engine/transmission controls, audio electronics, climate controls, anti-lock brakes, etc.

RESOURCES

- Datasheet: WSL0603...18 - <http://www.vishay.com/doc?31057>
- For technical questions contact ww2bresistors@vishay.com





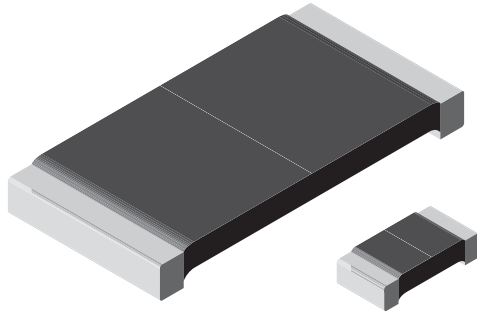
POWER METAL STRIP® RESISTOR

WSL0603...18



Resistors - Double the Power Capacity of WSL0603

Power Metal Strip® Resistors, High Power (2 x Standard WSL), Low Value (Down to 0.0005 Ω), Surface Mount



FEATURES

- Ideal for all types of current sensing, voltage division and pulse applications including switching and linear power supplies, instruments, power amplifiers
- Proprietary processing technique produces extremely low resistance values (down to 0.0005 Ω)
- Specially selected and stabilized materials allow for high power ratings (2 x standard WSL rating)
- All welded construction
- Solderable terminations
- Very low inductance 0.5 nH to 5 nH
- Excellent frequency response to 50 MHz
- Solid metal nickel-chrome or manganese-copper alloy resistive element with low TCR (< 20 ppm/°C)
- Low thermal EMF (< 3 μV/°C)
- AEC-Q200 qualified available
- Compliant to RoHS Directive 2002/95/EC

AUTOMOTIVE GRADE Available



RoHS* COMPLIANT

GREEN (5-2008)** Available

Notes

- * Pb containing terminations are not RoHS compliant, exemptions may apply
- ** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

STANDARD ELECTRICAL SPECIFICATIONS						
GLOBAL MODEL	SIZE	POWER RATING $P_{70}^{\circ C}$ W	RESISTANCE VALUE RANGE Ω		WEIGHT (typical) g/1000 pieces	
			Tol. ± 0.5 %	Tol. ± 1.0 %		
WSL0603...18	0603	0.20	0.01 to 0.1	0.01 to 0.1	1.9	
WSL0805...18	0805	0.25	0.005 to 0.2	0.005 to 0.2	4.8	
WSL1206...18	1206	0.5	0.005 to 0.2	0.001 to 0.2	16.2	
WSL2010...18	2010	1.0	0.004 to 0.5	0.001 to 0.5	38.9	
WSL2512...18	2512	2.0	0.003 to 0.04	0.0005 to 0.04	63.6	

Note

- Part marking: Value; tolerance: Due to resistor size limitations some resistors will be marked with only the resistance value.

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 400 for 0.5 mΩ to 0.99 mΩ, ± 275 for 1 mΩ to 2.9 mΩ, ± 150 for 3 mΩ to 4.9 mΩ ± 110 for 5 mΩ to 6.9 mΩ, ± 75 for 7 mΩ to 0.5 Ω
Operating temperature range	°C	- 65 to + 170
Maximum working voltage	V	$(P \times R)^{1/2}$

GLOBAL PART NUMBER INFORMATION				
Global Part Numbering example: WSL25124L000FTA18				
W	S	L	2	5
1	2	4	L	0
0	0	0	F	T
A	1	8		
GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE	SPECIAL
WSL0603 WSL0805 WSL1206 WSL2010 WSL2512	L = mΩ* R = Decimal 5L000 = 0.005 Ω R0100 = 0.01 Ω * Use "L" for resistance values < 0.01 Ω	D = ± 0.5 % F = ± 1.0 % J = ± 5.0 %	EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk TA = Tin/lead, tape/reel (R86) TG = Tin/lead, tape/reel (RT1, for WSL0603 and WSL0805) BA = Tin/lead, bulk (B43)	18 = "High power" option
Historical Part Numbering example: WSL2512-18 0.004 Ω 1 % R86				
WSL2512-18	0.004 Ω	1 %	R86	
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE	

Revision 09-Sep-11