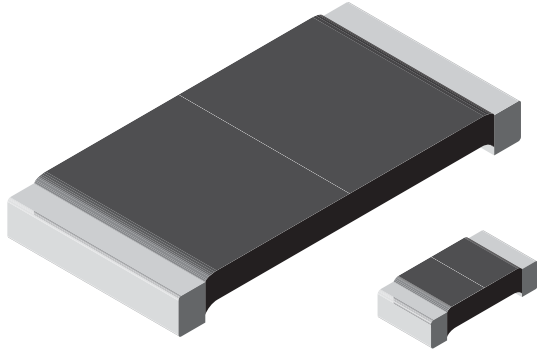




Power Metal Strip® Resistors, High Power (2 x Standard WSL), Low Value (Down to 0.0005 Ω), Surface Mount



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



Notes

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

Table with 6 columns: GLOBAL MODEL, SIZE, POWER RATING P70°C W, RESISTANCE VALUE RANGE Ω (Tol. ± 0.5 %, Tol. ± 1.0 %), WEIGHT (typical) g/1000 pieces. Rows include WSL0603...18, WSL0805...18, WSL1206...18, WSL2010...18, WSL2512...18.

Note

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

Table with 3 columns: PARAMETER, UNIT, RESISTOR CHARACTERISTICS. Rows include Temperature coefficient, Operating temperature range, Maximum working voltage.

GLOBAL PART NUMBER INFORMATION
Global Part Numbering example: WSL25124L000FTA18
Diagram showing part number breakdown: W S L 2 5 1 2 4 L 0 0 0 F T A 1 8
GLOBAL MODEL, RESISTANCE VALUE, TOLERANCE CODE, PACKAGING CODE, SPECIAL
Historical Part Numbering example: WSL2512-18 0.004 Ω 1 % R86

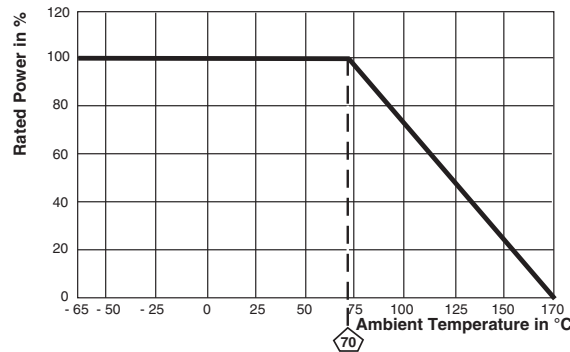


**DIMENSIONS** in inches (millimeters)



MODEL	RESISTANCE RANGE ( $\Omega$ )	DIMENSIONS				SOLDER PAD DIMENSIONS		
		L	W	H	T	a	b	l
WSL0603...18	0.01 to 0.1	0.060 ± 0.010 (1.52 ± 0.254)	0.030 ± 0.010 (0.76 ± 0.254)	0.013 ± 0.010 (0.330 ± 0.254)	0.015 ± 0.005 (0.381 ± 0.127)	0.040 (1.01)	0.040 (1.01)	0.020 (0.50)
WSL0805...18	0.005 to 0.2	0.080 ± 0.010 (2.03 ± 0.254)	0.050 ± 0.010 (1.27 ± 0.254)	0.013 ± 0.010 (0.330 ± 0.254)	0.015 ± 0.005 (0.381 ± 0.127)	0.040 (1.02)	0.050 (1.27)	0.020 (0.50)
WSL1206...18	0.001 to 0.0019	0.126 ± 0.010 (3.20 ± 0.254)	0.063 ± 0.010 (1.60 ± 0.254)	0.025 ± 0.010 (0.635 ± 0.254)	0.041 ± 0.010 (1.04 ± 0.254)	0.062 (1.57)	0.070 (1.78)	0.030 (0.76)
	0.002 to 0.0059				0.025 ± 0.010 (0.635 ± 0.254)			
	0.006 to 0.20				0.020 ± 0.010 (0.508 ± 0.254)			
WSL2010...18	0.001 to 0.0069	0.200 ± 0.010 (5.08 ± 0.254)	0.100 ± 0.010 (2.54 ± 0.254)	0.025 ± 0.010 (0.635 ± 0.254)	0.058 ± 0.010 (1.47 ± 0.254)	0.093 (2.36)	0.120 (3.05)	0.055 (1.40)
	0.007 to 0.5				0.020 ± 0.010 (0.508 ± 0.254)			
WSL2512...18	0.0005 to 0.00099	0.250 ± 0.010 (6.35 ± 0.254)	0.125 ± 0.010 (3.18 ± 0.254)	0.025 ± 0.010 (0.635 ± 0.254)	0.107 ± 0.010 (2.72 ± 0.254)	0.120 (3.05)	0.145 (3.68)	0.050 (1.27)
	0.001 to 0.0049				0.087 ± 0.010 (2.21 ± 0.254)			
	0.005 to 0.0069				0.047 ± 0.010 (1.19 ± 0.254)			
	0.007 to 0.04				0.030 ± 0.010 (0.762 ± 0.254)			

**DERATING**



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal shock	- 55 °C to + 150 °C, 1000 cycles, 15 min at each extreme	± (0.5 % + 0.0005 $\Omega$ ) $\Delta R$
Short time overload	5 x rated power for 5 s	± (0.5 % + 0.0005 $\Omega$ ) $\Delta R$
Low temperature storage	- 65 °C for 24 h	± (0.5 % + 0.0005 $\Omega$ ) $\Delta R$
High temperature exposure	1000 h at + 170 °C	± (1.0 % + 0.0005 $\Omega$ ) $\Delta R$
Bias humidity	+ 85 °C, 85 % RH, 10 % bias, 1000 h	± (0.5 % + 0.0005 $\Omega$ ) $\Delta R$
Mechanical shock	100 g's for 6 ms, 5 pulses	± (0.5 % + 0.0005 $\Omega$ ) $\Delta R$
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± (0.5 % + 0.0005 $\Omega$ ) $\Delta R$
Load life	1000 h at rated power, + 70 °C, 1.5 h "ON", 0.5 h "OFF"	± (1.0 % + 0.0005 $\Omega$ ) $\Delta R$
Resistance to solder heat	+ 260 °C solder, 10 s to 12 s dwell, 25 mm/s emergence	± (0.5 % + 0.0005 $\Omega$ ) $\Delta R$
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7a and 7b not required	± (0.5 % + 0.0005 $\Omega$ ) $\Delta R$

PACKAGING				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSL0603...18	8 mm/punched paper	178 mm/7"	5000	EA
WSL0805...18	8 mm/punched paper	178 mm/7"	5000	EA
WSL1206...18	8 mm/embossed plastic	178 mm/7"	4000	EA
WSL2010...18	12 mm/embossed plastic	178 mm/7"	4000	EA
WSL2512...18	12 mm/embossed plastic	178 mm/7"	2000	EA

**Note**

- Embossed Carrier Tape per EIA-481.



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## Material Category Policy

**Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.**

**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**

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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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