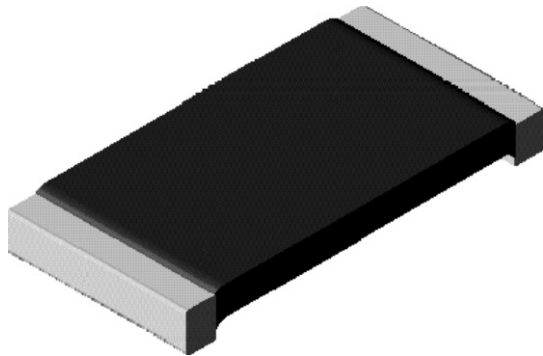


Power Metal Strip® Resistors, Very High Power (1 W) Low Value (down to 0.001 Ω), Surface Mount



FEATURES

- Very high power to foot print size ratio (1 W in 1206 package)
- Ideal for all types of current sensing and pulse applications including switching and linear power supplies, instruments, power amplifiers and shunts
- Proprietary processing technique produces extremely low resistance values (down to 0.001 Ω)
- All welded construction
- Solid metal Nickel-Chrome or Manganese-Copper alloy resistive element with low TCR (< 20 ppm/°C)
- Very low inductance 0.5 nH to 5 nH
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 μ V/°C)
- Compliant to RoHS directive 2002/95/EC



RoHS
COMPLIANT
GREEN
(5-2008)**

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	POWER RATING $P_{70^{\circ}\text{C}}$ W	RESISTANCE RANGE Ω		WEIGHT (typical) g/1000 pieces
		$\pm 0.5\%$	$\pm 1.0\%$	
WSLP1206	1.0	0.01 to 0.05	0.001 to 0.05	16.2

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	WSLP 1206
Temperature Coefficient	ppm/°C	± 275 for 1 m Ω to 2.9 m Ω , ± 150 for 3 m Ω to 4.9 m Ω ± 110 for 5 m Ω to 6.9 m Ω , ± 75 for 7 m Ω to 50 m Ω
Operating Temperature Range	°C	- 65 to + 170
Maximum Working Voltage	V	$(P \times R)^{1/2}$

Note

- Part Marking: Value

GLOBAL PART NUMBER INFORMATION

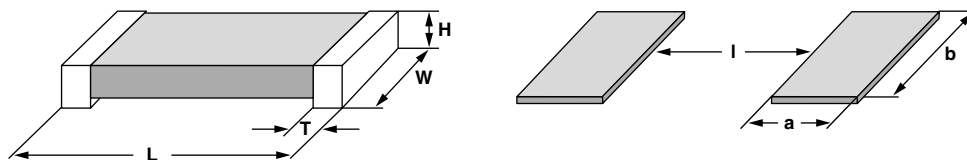
NEW GLOBAL PART NUMBERING: WSLP1206R0100FEA

W S L P 1 2 0 6 R 0 1 0 0 F E A

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE	SPECIAL
WSLP1206	L = m Ω * R = Decimal 4L000 = 0.004 Ω R0100 = 0.01 Ω * use "L" for resistance values < 0.01 Ω	D = $\pm 0.5\%$ F = $\pm 1.0\%$	EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk	Reserved for future specials

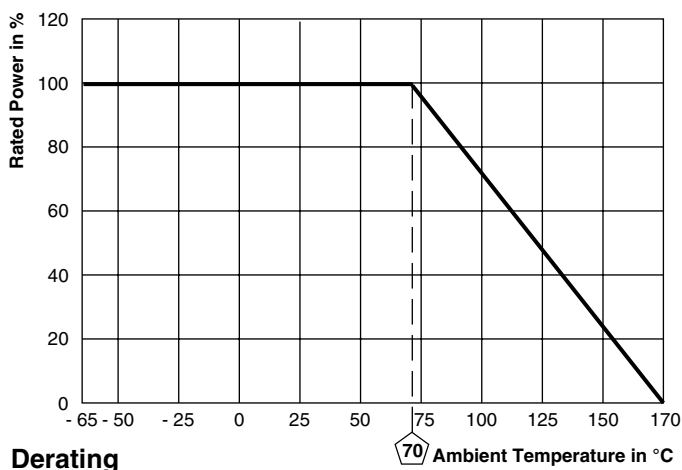
** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

DIMENSIONS



MODEL	RESISTANCE RANGE (Ω)	DIMENSIONS in inches [millimeters]			
		L	W	H	T
WSLP1206	0.001 to 0.0019	0.126 $\pm$ 0.010 [3.2 $\pm$ 0.254]	0.063 $\pm$ 0.010 [1.6 $\pm$ 0.254]	0.025 $\pm$ 0.010 [0.635 $\pm$ 0.254]	0.041 $\pm$ 0.010 [1.04 $\pm$ 0.254]
	0.002 to 0.0059	0.126 $\pm$ 0.010 [3.2 $\pm$ 0.254]	0.063 $\pm$ 0.010 [1.6 $\pm$ 0.254]	0.025 $\pm$ 0.010 [0.635 $\pm$ 0.254]	0.025 $\pm$ 0.010 [0.635 $\pm$ 0.254]
	0.006 to 0.050	0.126 $\pm$ 0.010 [3.2 $\pm$ 0.254]	0.063 $\pm$ 0.010 [1.6 $\pm$ 0.254]	0.025 $\pm$ 0.010 [0.635 $\pm$ 0.254]	0.020 $\pm$ 0.010 [0.508 $\pm$ 0.254]

MODEL	RESISTANCE RANGE (Ω)	SOLDER PAD DIMENSIONS in inches [millimeters]		
		a	b	l
WSLP1206	0.001 to 0.05	0.062 [1.57]	0.070 [1.78]	0.030 [0.76]



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	- 55 °C to + 150 °C, 1000 cycles, 15 min at each extreme	$\pm$ (0.5 % + 0.0005 Ω) ΔR
Low Temperature Operation	- 65 °C for 45 min	$\pm$ (0.5 % + 0.0005 Ω) ΔR
High Temperature Exposure	1000 h at + 170 °C	$\pm$ (1.0 % + 0.0005 Ω) ΔR
Bias Humidity	+ 85 °C, 85 % RH, 10 % Bias, 1000 h	$\pm$ (0.5 % + 0.0005 Ω) ΔR
Mechanical Shock	100 g's for 6 ms, 5 pulses	$\pm$ (0.5 % + 0.0005 Ω) ΔR
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	$\pm$ (0.5 % + 0.0005 Ω) ΔR
Load Life	1000 h at 70 °C, 1.5 h "ON", 0.5 h "OFF"	$\pm$ (1.0 % + 0.0005 Ω) ΔR
Resistance to Solder Heat	+ 260 °C Solder, 10 s to 12 s dwell, 25 mm/s emergence	$\pm$ (0.5 % + 0.0005 Ω) ΔR
Moisture Resistance	MIL-STD-202, Method 106, 0 % power, 7b not required	$\pm$ (0.5 % + 0.0005 Ω) ΔR

PACKAGING				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSLP1206	8 mm/Embossed Plastic	178 mm/7"	4000	EA

Note

- Embossed Carrier Tape per EIA-481-2



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.