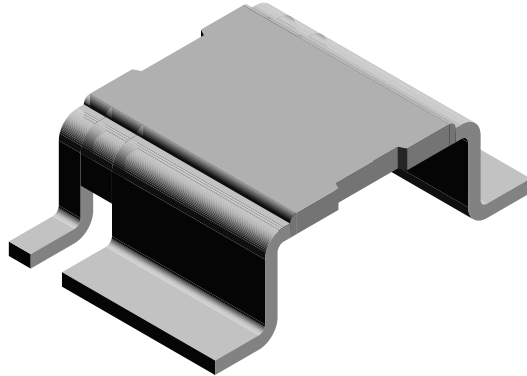


## Power Metal Strip® Resistors, Very High Power (to 7 W), Low Value (down to 0.0005 Ω), Surface Mount



### FEATURES

- High power to foot print size ratio
- Ideal for all types of current sensing, voltage division and pulse applications including switching and linear power supplies, instruments, power amplifiers, and shunts
- Proprietary processing technique produces extremely low resistance values, down to 0.0005 Ω
- Specially selected and stabilized materials allow for high power rating (to 7 W)
- All welded construction
- Solid metal nickel-chrom or manganese-copper alloy resistive element with low TCR (< 20 ppm/°C)
- Very low inductance 0.5 nH to 5 nH
- Low thermal EMF (< 3 μV/°C)
- AEC-Q200 qualified available <sup>(1)</sup>
- Material categorization: For definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

 AUTOMOTIVE  
GRADE  
Available

**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**  
**GREEN**  
(5-2008)

### Note

- <sup>(1)</sup> Flame retardance test may not be applicable to some resistor technologies.

### STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	SIZE	POWER RATING $P_{70\text{ }^\circ\text{C}}$ W	TOLERANCE ± %	RESISTANCE VALUE RANGE Ω	RESISTANCE VALUES CURRENTLY AVAILABLE <sup>(2)</sup> Ω	WEIGHT (typical) g/1000 pieces
WSLP4026	4026	5.0	1.0, 5.0	2m	2m	420
WSLP4026	4026	7.0	1.0, 5.0	0.5m to 1m	0.5m, 0.7m, 1m	420

### Notes

- Power rating depends on the max. temperature at the solder point, component placement density and the substrate material.
- Part marking: Model, value, tolerance, date code.
- <sup>(2)</sup> Other values may be available, contact factory.

### TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 75 over temperature of +20 °C to +60 °C
Element TCR	ppm/°C	< 20
Operating temperature range	°C	-65 to +170
Maximum working voltage	V	$(P \times R)^{1/2}$

### GLOBAL PART NUMBER INFORMATION

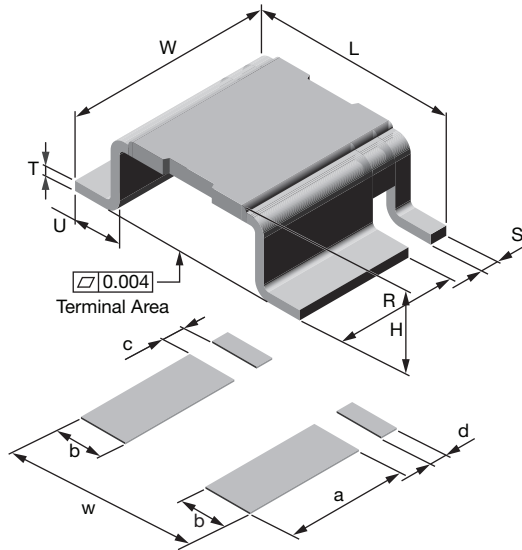
Global Part Numbering: WSLP4026L5000FEA (WSLP4026, 0.0005 Ω, ± 1 %)

W	S	L	P	4	0	2	6	L	5	0	0	0	F	E	A		
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GLOBAL MODEL <b>WSLP4026</b>	RESISTANCE VALUE L = mΩ <b>L5000</b> = 0.0005 Ω <b>L7000</b> = 0.0007 Ω <b>1L000</b> = 0.0010 Ω <b>2L000</b> = 0.0020 Ω	TOLERANCE CODE <b>F</b> = ± 1.0 % <b>J</b> = ± 5.0 %	PACKAGING CODE <b>EA</b> = Lead (Pb)-free, tape/reel <b>EK</b> = Lead (Pb)-free, bulk	SPECIAL (Dash number) (Up to 2 digits) From <b>1 to 99</b> as applicable
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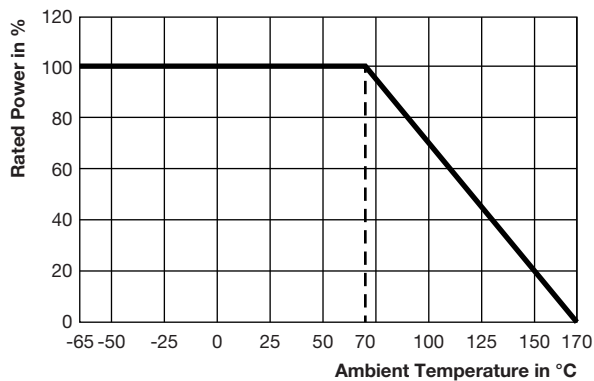
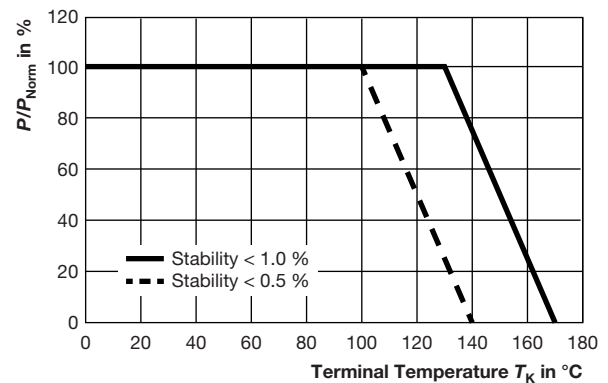
**DIMENSIONS**

MODEL	DIMENSIONS in inches (millimeters)						
	L	W	H	R	S	T	U
WSLP4026	0.400 ± 0.008 (10.1 ± 0.2)	0.260 + 0.012/- 0.008 (6.6 + 0.3/- 0.2)	Please see table below	0.193 ± 0.006 (4.9 ± 0.15)	0.028 ± 0.004 (0.7 ± 0.1)	0.016 ± 0.002 (0.4 ± 0.05)	0.078 ± 0.004 (2.0 ± 0.1)



MODEL	SOLDER PAD DIMENSIONS in inches (millimeters)				
	a	b	c	d	w
WSLP4026	0.220 (5.6)	0.096 (2.44)	0.035 (0.89)	0.035 (0.89)	0.420 (10.6)

MODEL	RESISTANCE VALUE (mΩ)	ELEMENT MATERIAL	HEIGHT H
WSLP4026	0.5	Mn-Cu	0.116 ± 0.008 (2.95 ± 0.2)
WSLP4026	0.7	Mn-Cu	0.111 ± 0.008 (2.82 ± 0.2)
WSLP4026	1.0	Mn-Cu	0.1055 ± 0.008 (2.68 ± 0.2)
WSLP4026	2.0	Ni-Cr	0.114 ± 0.008 (2.9 ± 0.2)

**DERATING - AMBIENT TEMPERATURE**

**DERATING - TERMINAL TEMPERATURE**


Example: WSLP4026 0.0005 Ω



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± (0.5 %) ΔR
Short time overload	5 x rated power for 5 s	± (0.5 %) ΔR
Low temperature operation	-65 °C for 45 min	± (0.5 %) ΔR
High temperature exposure	1000 h at + 170 °C	± (1.0 %) ΔR
Bias humidity	+85 °C, 85 % RH, 10 % bias, 1000 h	± (0.5 %) ΔR
Mechanical shock	100 g's for 6 ms, 5 pulses	± (0.5 %) ΔR
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± (0.5 %) ΔR
Load life	1000 h at +70 °C, 1.5 h "ON", 0.5 h "OFF"	± (1.0 %) ΔR
Resistance to solder heat	+260 °C solder, 10 s to 12 s dwell, 25 mm/s emergence	± (0.5 %) ΔR
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7b not required	± (0.5 %) ΔR

PACKAGING				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSLP4026	16 mm/embossed plastic	330 mm/13"	1500	EA

Note

- Embossed carrier tape per EIA-481.



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