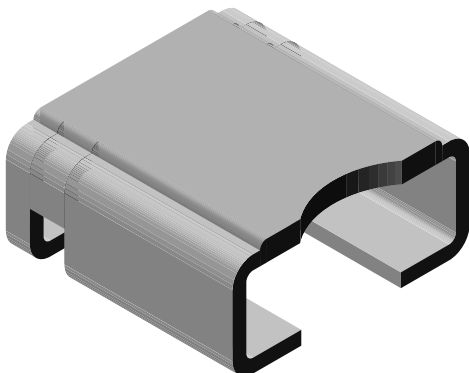


# Power Metal Strip® Resistors, Very High Power (to 7 W), Low Value (down to 0.0005 Ω), Surface Mount



## 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-chrome 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 $P_{70^{\circ}\text{C}}$ W	TOLERANCE ± %	RESISTANCE VALUE RANGE Ω	RESISTANCE VALUES CURRENTLY AVAILABLE <sup>(2)</sup> Ω	WEIGHT (typical) g/1000 pieces
WSLP2726	2726	5.0	1.0, 5.0	2m	2m	420
WSLP2726	2726	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: WSLP2726L5000FEA (WSLP2726, 0.0005 Ω, ± 1 %)

W S L P 2 7 2 6 L 5 0 0 0 F E A

GLOBAL MODEL

WSLP2726

RESISTANCE VALUE

L = mΩ  
L5000 = 0.0005 Ω  
L7000 = 0.0007 Ω  
1L000 = 0.0010 Ω  
2L000 = 0.0020 Ω

TOLERANCE CODE

F = ± 1.0 %  
J = ± 5.0 %

PACKAGING CODE

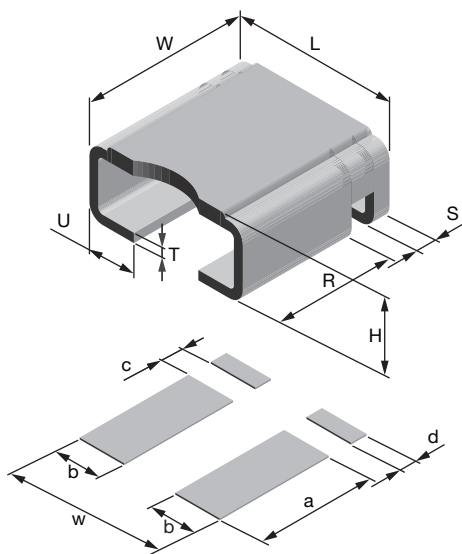
EA = Lead (Pb)-free, tape/reel  
EK = Lead (Pb)-free, bulk

SPECIAL

(Dash number)  
(Up to 2 digits)  
From 1 to 99 as  
applicable

## DIMENSIONS

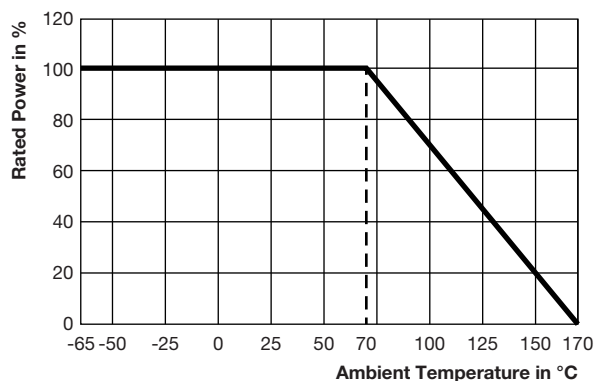
MODEL	DIMENSIONS in inches (millimeters)						
	L	W	H	R	S	T	U
WSLP2726	0.272 ± 0.008 (6.9 ± 0.2)	0.260 + 0.012/- 0.008 (6.6 + 0.3/- 0.2)	Please see table below	0.193 ± 0.006 (4.9 ± 0.15)	0.028 ± 0.004 (0.7 ± 0.1)	0.016 ± 0.002 (0.4 ± 0.05)	0.078 ± 0.004 (2.0 ± 0.1)



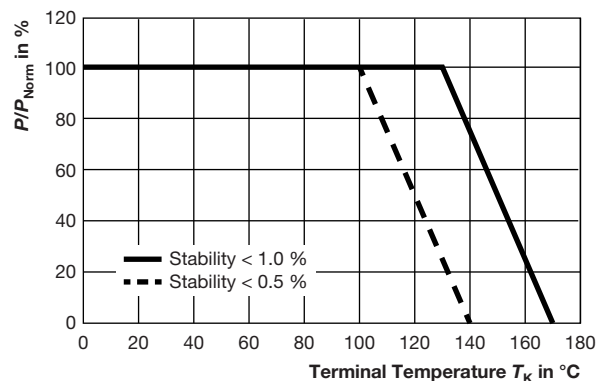
MODEL	SOLDER PAD DIMENSIONS in inches (millimeters)				
	a	b	c	d	w
WSLP2726	0.220 (5.6)	0.096 (2.44)	0.035 (0.89)	0.035 (0.89)	0.290 (7.4)

MODEL	RESISTANCE VALUE (mΩ)	ELEMENT MATERIAL	HEIGHT H
WSLP2726	0.5	Mn-Cu	0.116 ± 0.008 (2.95 ± 0.2)
WSLP2726	0.7	Mn-Cu	0.111 ± 0.008 (2.82 ± 0.2)
WSLP2726	1.0	Mn-Cu	0.1055 ± 0.008 (2.68 ± 0.2)
WSLP2726	2.0	Ni-Cr	0.114 ± 0.008 (2.9 ± 0.2)

## DERATING - AMBIENT TEMPERATURE



## DERATING - TERMINAL TEMPERATURE



Example: WSLP2726 0.0005 Ω



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

PACKAGING				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSLP2726	16 mm/embossed plastic	330 mm/13"	1500	EA

**Note**

- Embossed carrier tape per EIA-481.



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