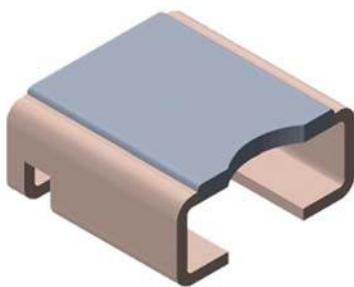


## Power Metal Strip® Resistors, Low Value, High Power, Surface Mount, 4-Terminal



### FEATURES

- 4-Terminal design allows for 1 % tolerance down to 0.0003  $\Omega$
- 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 0.0003  $\Omega$
- All welded construction
- Solid metal nickel-chrome or manganese-copper alloy resistive element with low TCR (< 20 ppm/ $^{\circ}$ C)
- Very low inductance 0.5 nH to 5 nH
- Low thermal EMF (< 3  $\mu$ V/ $^{\circ}$ 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**  
(IS-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 $\pm$ %	RESISTANCE VALUE RANGE $\Omega$	RESISTANCE VALUES CURRENTLY AVAILABLE <sup>(2)</sup> $\Omega$	WEIGHT (typical) g/1000 pieces
WSL2726	2726	3.0	1.0	0.3m to 5m	0.3m, 0.5m, 0.7m, 1m, 2m, 3m, 4m, 5m	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/ $^{\circ}$ C	$\pm$ 75 over temperature of +20 $^{\circ}$ C to +60 $^{\circ}$ C
Element TCR	ppm/ $^{\circ}$ C	< 20
Operating temperature range	$^{\circ}$ C	-65 to +170
Maximum working voltage	V	$(P \times R)^{1/2}$

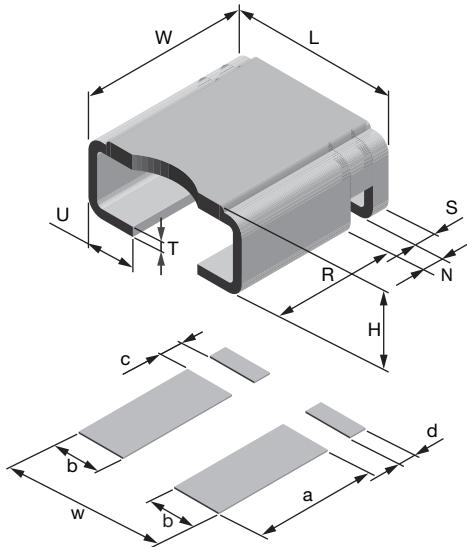
### GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: WSL2726L5000FEA (WSL2726, 0.0005  $\Omega$ ,  $\pm$  1 %)

<b>W</b>	<b>S</b>	<b>L</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>6</b>	<b>L</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>F</b>	<b>E</b>	<b>A</b>			
GLOBAL MODEL				RESISTANCE VALUE				TOLERANCE CODE				PACKAGING CODE				SPECIAL	
<b>WSL2726</b>				<b>L</b> = m $\Omega$				<b>F</b> = $\pm$ 1.0 %				<b>EA</b> = Lead (Pb)-free, tape/reel <b>EK</b> = Lead (Pb)-free, bulk				(Dash number) (Up to 2 digits) From 1 to 99 as applicable	
				<b>L3000</b> = 0.0003 $\Omega$				<b>L5000</b> = 0.0005 $\Omega$				<b>L7000</b> = 0.0007 $\Omega$					
				<b>1L000</b> = 0.0010 $\Omega$				<b>2L000</b> = 0.0020 $\Omega$				<b>3L000</b> = 0.0030 $\Omega$					
				<b>4L000</b> = 0.0040 $\Omega$				<b>5L000</b> = 0.0050 $\Omega$									

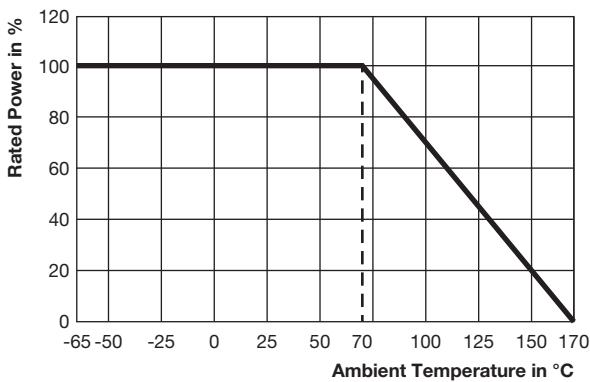
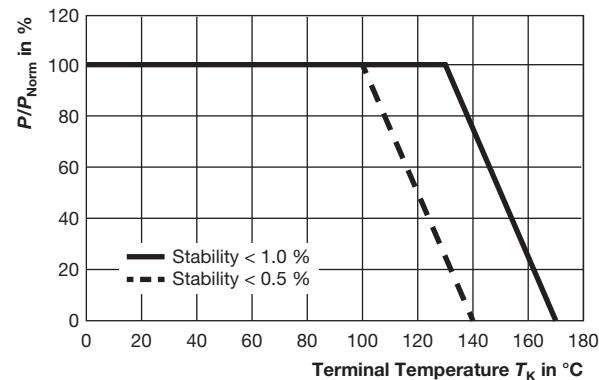
**DIMENSIONS**

MODEL	DIMENSIONS in inches (millimeters)							
	L	W	H	R (REF.)	S	T	U	N
WSL2726	0.272 ± 0.008 (6.9 ± 0.2)	0.260 + 0.012/- 0.008 (6.6 + 0.3/- 0.2)	Please see table below	0.198 (5.0)	0.028 ± 0.004 (0.7 ± 0.1)	0.016 ± 0.002 (0.4 ± 0.05)	0.078 ± 0.004 (2.0 ± 0.1)	0.039 0.006 (0.99 ± 0.15)



MODEL	SOLDER PAD DIMENSIONS in inches (millimeters)				
	a	b	c	d	w
WSL2726	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
WSL2726	0.3	Mn-Cu	0.141 ± 0.008 (3.58 ± 0.2)
	0.5	Mn-Cu	0.116 ± 0.008 (2.95 ± 0.2)
	0.7	Mn-Cu	0.111 ± 0.008 (2.82 ± 0.2)
	1.0	Mn-Cu	0.1055 ± 0.008 (2.68 ± 0.2)
	2.0	Ni-Cr	0.114 ± 0.008 (2.9 ± 0.2)
	3.0	Ni-Cr	0.110 ± 0.008 (2.79 ± 0.2)
	4.0	Ni-Cr	0.110 ± 0.008 (2.79 ± 0.2)
	5.0	Ni-Cr	0.110 ± 0.008 (2.79 ± 0.2)

**DERATING - AMBIENT TEMPERATURE**

**DERATING - TERMINAL TEMPERATURE**


Example: WSL2726 0.0005 Ω

<b>PERFORMANCE</b>		
<b>TEST</b>	<b>CONDITIONS OF TEST</b>	<b>TEST LIMITS</b>
Thermal shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± (0.5 %) ΔR
Short time overload	0.3 mΩ, 0.5 mΩ, 2 mΩ and 3 mΩ - 5x rated power for 5 s 4 mΩ and 5 mΩ - 3x 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

<b>PACKAGING</b>				
<b>MODEL</b>	<b>REEL</b>			
	<b>TAPE WIDTH</b>	<b>DIAMETER</b>	<b>PIECES/REEL</b>	<b>CODE</b>
WSL2726	16 mm/embossed plastic	330 mm/13"	1500	EA

**Note**

- Embossed Carrier Tape per EIA-481.

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