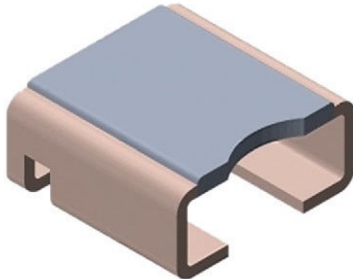


# Power Metal Strip® Resistors, High Temperature (275 °C), High Power, Low Value, Surface Mount, 4-Terminal



## FEATURES

- 4-terminal design allows for 1 % tolerance down to 0.0013 Ω
- High power-to-footprint size ratio
- Proprietary processing technique produces extremely low resistance values, down to 0.0013 Ω
- Sulfur resistance by construction that is unaffected by high sulfur environments
- All welded construction of the Power Metal Strip® resistors are ideal for all types of current sensing, voltage division and pulse applications
- Solid metal nickel-chrome 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 <sup>(1)</sup>
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)

AUTOMOTIVE GRADE


**RoHS**  
COMPLIANT

HALOGEN

**FREE**
**GREEN**

(5-2008)

## ADDITIONAL RESOURCES



## Notes

- Follow link to Overview of Automotive Grade Products for more details: [www.vishay.com/doc?49924](http://www.vishay.com/doc?49924)
- <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 $\pm$ %	RESISTANCE VALUE RANGE $\Omega$	RESISTANCE VALUES CURRENTLY AVAILABLE <sup>(1)</sup> $\Omega$	WEIGHT (typical) g/1000 pieces
WSLT2726	2726	3.0	1.0	0.3m to 5m	1.3m, 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>(1)</sup> Other values may be available, contact factory

## GLOBAL PART NUMBER INFORMATION

 Global Part Numbering: **WSLT27265L000FEA** (visit [www.vishay.net](http://www.vishay.net) Vishay Dale parts numbering manual for all options)

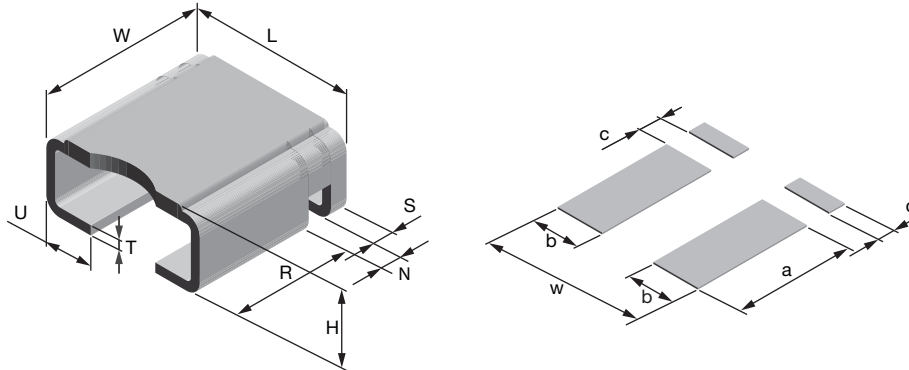
<b>W</b>	<b>S</b>	<b>L</b>	<b>T</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>6</b>	<b>5</b>	<b>L</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>F</b>	<b>E</b>	<b>A</b>		
GLOBAL MODEL (8 digits)		RESISTANCE VALUE (5 digits)			TOLERANCE CODE (1 digit)		PACKAGING CODE <sup>(1)</sup> (2 digits)				SPECIAL <sup>(2)</sup> (up to 2 digits)						
<b>WSLT2726</b>		L = mΩ 2L000 = 0.002 Ω 3L000 = 0.003 Ω 4L000 = 0.004 Ω 5L000 = 0.005 Ω			F = ± 1.0 %		EA = lead (Pb)-free, tape / reel EK = lead (Pb)-free, bulk				(dash number) (up to 2 digits) from 1 to 99 as applicable						

## Notes

- <sup>(1)</sup> Packaging code: EB (lead (Pb)-free) and TB (tin / lead) are non-standard packaging codes designating 1000 piece reels. These non-standard packaging codes are identical to our standard EA (lead (Pb)-free) and TA (tin / lead), except that they have a package quantity of 1000 pieces
- <sup>(2)</sup> Follow link for customization capabilities: [www.vishay.com/doc?48163](http://www.vishay.com/doc?48163)

**TECHNICAL SPECIFICATIONS**

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 75 over temperature of +20 °C to +60 °C
Operating temperature range	°C	-65 to +275
Maximum continuous current	V	$(P \times R)^{1/2}$

**DIMENSIONS** in inches (millimeters)

**Notes**

- 3D models available: [www.vishay.com/doc?30318](http://www.vishay.com/doc?30318)
- Surface mount solder profile recommendations: [www.vishay.com/doc?31052](http://www.vishay.com/doc?31052)

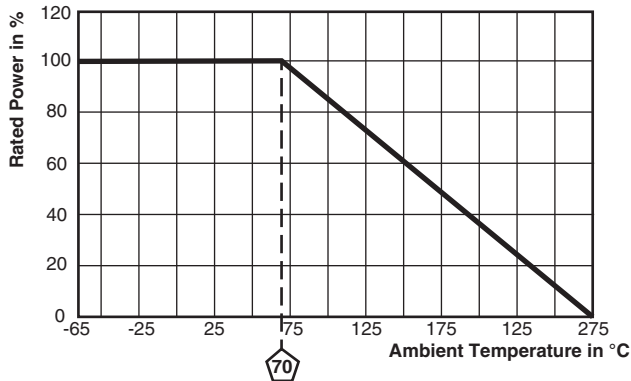
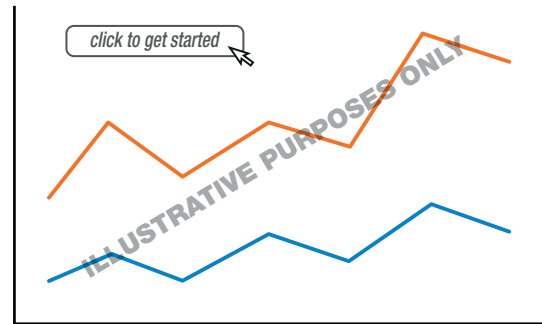
MODEL	DIMENSIONS							
	L	W	H	R (REF.)	S	T	U	N
WSLT2726	0.272 ± 0.008 (6.9 ± 0.2)	0.260 + 0.012/- 0.008 (6.6 + 0.3/- 0.2)	0.117 ± 0.008 (3.0 ± 0.2)	0.195 (5.0)	0.028 ± 0.004 (0.7 ± 0.1)	0.016 ± 0.002 (0.4 ± 0.05)	0.078 ± 0.004 (2.0 ± 0.1)	0.039 ± 0.006 (0.99 ± 0.15)

MODEL	SOLDER PAD DIMENSIONS				
	a	b	c	d	w
WSLT2726	0.220 (5.6)	0.096 (2.44)	0.035 (0.89)	0.035 (0.89)	0.290 (7.4)

MODEL	RESISTANCE VALUE (mΩ)	THERMAL RESISTANCE <sup>(1)</sup> (°C/W)	ELEMENT MATERIAL	HEIGHT H
WSLT2726	1.3	11	Ni-Cr	0.119 ± 0.008 (3.02 ± 0.2)
	2.0	3	Ni-Cr	0.150 ± 0.008 (3.81 ± 0.2)
	3.0	4	Ni-Cr	0.141 ± 0.008 (3.58 ± 0.2)
	4.0	6	Ni-Cr	0.116 ± 0.008 (2.95 ± 0.2)
	5.0	8	Ni-Cr	0.111 ± 0.008 (2.82 ± 0.2)

**Note**

<sup>(1)</sup> The full power rating of Power Metal Strip resistors are dependent upon the ability of the circuit board to dissipate the heat energy created in the resistance element. It is recommended to follow common design practices for power semiconductors that ensure the junction temperature is maintained within thermal limits by using large pad surfaces, thermal vias, heavier copper weights, internal layers as well as other thermal spreading features. The Thermal resistance values provided function in the same manner as junction to terminal temperature.

**DERATING**

**PULSE CAPABILITY**

[www.vishay.com/resistors/power-metal-strip-calculator](http://www.vishay.com/resistors/power-metal-strip-calculator)

PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± 0.5 %
Short time overload	0.3 mΩ, 0.5 mΩ, 2 mΩ and 3 mΩ - 5 x rated power for 5 s 4 mΩ and 5 mΩ - 3 x rated power for 5 s	± 0.5 %
Low temperature operation	-65 °C for 24 h	± 0.5 %
High temperature exposure	1000 h at +275 °C	± 1.0 %
Bias humidity	+85 °C, 85 % RH, 10 % bias, 1000 h	± 0.5 %
Mechanical shock	100 g's for 6 ms, 5 pulses	± 0.5 %
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± 0.5 %
Load life	1000 h at +70 °C, 1.5 h "ON", 0.5 h "OFF"	± 1.0 %
Resistance to solder heat	3 x at 250 °C ± 5 °C for 30 s ± 5 s	± 0.5 %
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7b not required	± 0.5 %

PACKAGING (1)				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSLT2726	16 mm / embossed plastic	330 mm / 13"	1500	EA

**Notes**

- Embossed carrier tape per EIA-481
- (1) Additional packaging details at [www.vishay.com/doc?20051](http://www.vishay.com/doc?20051)



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