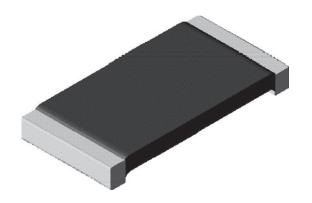


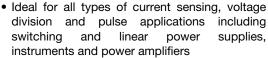
www.vishay.com

Vishay Dale

# Power Metal Strip<sup>®</sup> Resistors High Temperature (275 °C), High Power (1 W), Low Value (down to 0.01 $\Omega$ ), Surface Mount



#### **FEATURES**





AUTOMOTIVE

- Proprietary processing technique produces extremely low resistance values
- Specially selected and stabilized materials allow for high temperature derating (to + 275 °C) and
- (e3) RoHS

HALOGEN FREE

**GREEN** 

(5-2008)

- All welded construction
- Solid metal nickel-chrome alloy resistive element with low TCR (< 20 ppm/°C)</li>

high power ratings (2 x standard WSL rating)

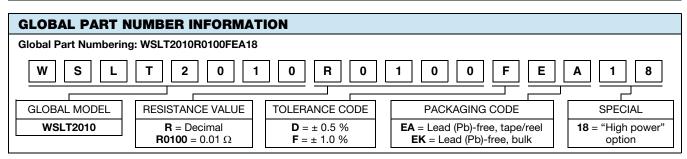
- Very low inductance (< 5 nH)
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 μV/°C)</li>
- AEC-Q200 qualified available (1)
- Material categorization: For definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

#### Note

(1) Flame retardance test may not be applicable to some resistor technologies.

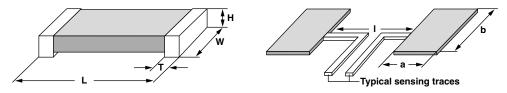
STANDARD ELECTRICAL SPECIFICATIONS						
GLOBAL MODEL	SIZE	POWER RATING P <sub>70 °C</sub> W	TOLERANCE %	RESISTANCE VALUE RANGE $\Omega$	WEIGHT (typical) g/1000 pieces	
WSLT201018	2010	1.0	± 0.5 and ± 1.0	0.01 to 0.50	38.9	

TECHNICAL SPECIFICATIONS				
PARAMETER	UNIT	RESISTOR CHARACTERISTICS		
Temperature coefficient	ppm/°C	± 75		
Element TCR	ppm/°C	< 20		
Inductance	nH	< 5		
Operating temperature range	°C	- 65 to + 275		
Maximum continuous current	А	(P/R) <sup>1/2</sup>		



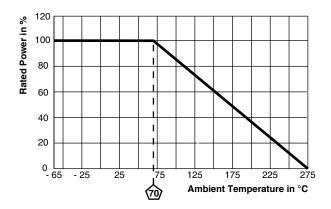


### **DIMENSIONS** in inches (millimeters)



MODEL	DIMENSIONS				SOLDER PAD DIMENSIONS		
MODEL	L	w	Н	Т	а	b	I
WSLT201018	0.200 ± 0.010 (5.08 ± 0.254)	0.100 ± 0.010 (2.54 ± 0.254)	0.025 ± 0.010 (0.635 ± 0.254)	0.020 ± 0.010 (0.508 ± 0.254)	0.055 (1.40)	0.120 (3.05)	0.130 (3.30)

#### **DERATING**



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 + 275 °C	± 2.0 % 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 at 70 °C	1000 h, 1.5 h "ON", 0.5 h "OFF"	± 1.0 % ΔR			
Load life at 150 °C	1000 h, 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	± 1.0 % ΔR			

PACKAGING						
MODEL	REEL					
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE		
WSLT201018	12 mm/embossed plastic	178 mm/7"	4000	EA		

#### Note

• Embossed Carrier Tape per EIA-481-2.



## **Legal Disclaimer Notice**

Vishay

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Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

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