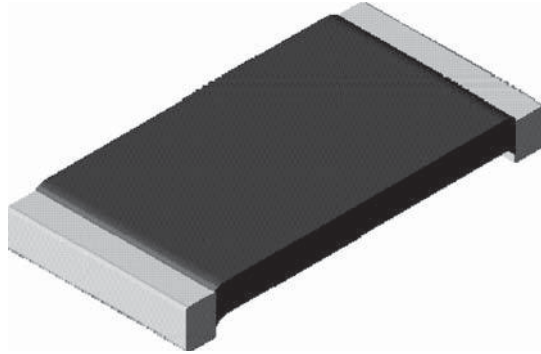




# Power Metal Strip® Resistors, High Temperature (275 °C), Low Value (down to 0.01 Ω), Surface Mount



## FEATURES

- Ideal for all types of current sensing, voltage division and pulse applications including switching and linear power supplies, instruments and power amplifiers
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- Specially selected and stabilized materials allow for high temperature derating (to +275 °C)
- Solid metal nickel-chrome alloy resistive element with low TCR (< 20 ppm/°C)
- Very low inductance (< 5 nH)
- Excellent frequency response to 50 MHz
- 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.

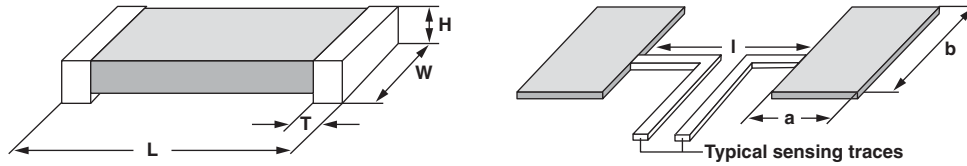
STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	SIZE	POWER RATING <i>P</i> <sub>70 °C</sub> W	TOLERANCE ± %	RESISTANCE VALUE RANGE Ω	WEIGHT (typical) g/1000 pieces
WSLT2512	2512	1.0	0.5, 1.0	0.01 to 0.50	63.6

### Note

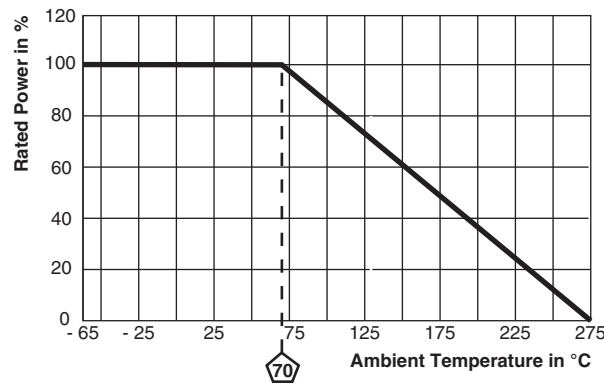
- Part marking: DALE, value, tolerance code.

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	A	(P/R) <sup>1/2</sup>

GLOBAL PART NUMBER INFORMATION																	
Global Part Numbering example: WSLT2512R0100FEA																	
W	S	L	T	2	5	1	2	R	0	1	0	0	F	E	A		
GLOBAL MODEL				RESISTANCE VALUE			TOLERANCE CODE		PACKAGING CODE				SPECIAL				
WSLT2512				R = Decimal R0100 = 0.01 Ω			D = ± 0.5 % F = ± 1.0 %		EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk				Reserved for future specials				

**DIMENSIONS** in inches (millimeters)


MODEL	DIMENSIONS				SOLDER PAD DIMENSIONS		
	L	W	H	T	a	b	l
WSLT2512	0.250 ± 0.010 (6.35 ± 0.254)	0.125 ± 0.010 (3.18 ± 0.254)	0.025 ± 0.010 (0.635 ± 0.254)	0.030 ± 0.010 (0.762 ± 0.254)	0.065 (1.65)	0.145 (3.68)	0.160 (4.06)

**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	5x 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	± 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 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
WSLT2512	12 mm/embossed plastic	178 mm/7"	2000	EA

**Note**

- Embossed Carrier Tape per EIA-481.



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