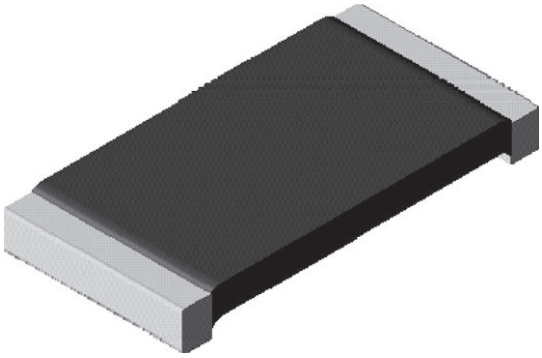
Power Metal Strip® Resistors, Improved Stability (0.25 % and 0.5 %), Low Value, Surface Mount



FEATURES

- Current sensing in high-temperature (+ 125 °C) applications
- Greater stability with maximum resistance change of 0.25 % or 0.5 % through 2000 h workload
- 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 (0.01 Ω to 0.1 Ω)
- All welded construction
- Solid metal nickel-chrome resistive element with low TCR (< 20 ppm/°C)
- Very low inductance 0.5 neH to 2 nH
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 µV/°C)
- AEC-Q200 qualified (1)
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

Note

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

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	SIZE	POWER RATING $P_{70\,°C}$ W	TOLERANCE ± %	RESISTANCE VALUE RANGE Ω	WEIGHT (typical) g/1000 pieces
WSLS2512	2512	1.0	0.5, 1.0, 5.0	0.01 to 0.1	63.6

Note

- Part marking: Value, RTC/stability code.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Temperature coefficient	ppm/°C	± 75
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 example: WSLS2512R0100FHEA

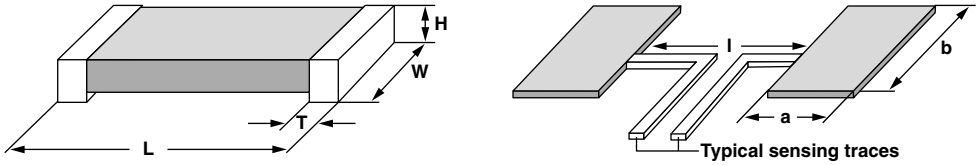
W	S	L	S	2	5	1	2	R	0	1	0	0	F	H	E	A		

GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	RTC/STABILITY	PACKAGING CODE	SPECIAL
WSLS2512	**R** = Decimal **R0100** = 0.01 Ω	**D** = ± 0.5 % **F** = ± 1.0 % **J** = ± 5.0 %	**G** = 75 ppm, 0.25 % stability **H** = 75 ppm, 0.5 % stability	**EA** = Lead (Pb)-free, tape/reel **EK** = Lead (Pb)-free, bulk	(Dash number) (up to 2 digits) From **1 to 99** as applicable

For technical questions, contact: ww2bresistors@vishay.com

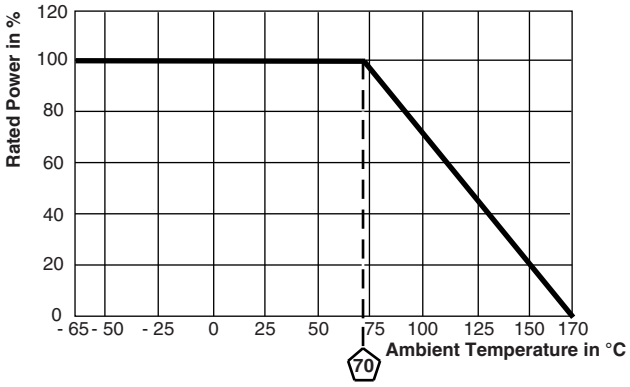
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DIMENSIONS in inches (millimeters)



MODEL	DIMENSIONS				SOLDER PAD DIMENSIONS		
	L	W	H	T	a	b	l
WSLS2512	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	
		0.25 %	0.5 %
Thermal shock	- 55 °C to + 150 °C, 1000 cycles, 15 min at each extreme	± (0.5 % + 0.005 Ω) Δ*R*	
Short time overload	5 x rated power for 5 s for WSL2512 size or smaller	± (0.5 % + 0.005 Ω) Δ*R*	
Low temperature operation	- 65 °C for 45 min	± (0.5 % + 0.005 Ω) Δ*R*	
High temperature exposure	1000 h at + 170 °C	± (1.0 % + 0.005 Ω) Δ*R*	
Bias humidity	+ 85 °C, 85 % RH, 10 % bias, 1000 h	± (0.5 % + 0.005 Ω) Δ*R*	
Mechanical shock	100 *g*'s for 6 ms, 5 pulses	± (0.5 % + 0.005 Ω) Δ*R*	
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± (0.5 % + 0.005 Ω) Δ*R*	
Load life	2000 h at 70 °C, 1.5 h "ON", 0.5 h "OFF"	± 0.25 % Δ*R*	± 0.5 % Δ*R*
Resistance to solder heat	+ 260 °C solder, 10 s to 12 s dwell, 25 mm/s emergence	± (0.5 % + 0.005 Ω) Δ*R*	
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7b not required	± (0.5 % + 0.005 Ω) Δ*R*	

PACKAGING				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSLS2512	12 mm/embossed plastic	178 mm/7"	2000	EA

Note

- Embossed Carrier Tape per EIA-481.

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