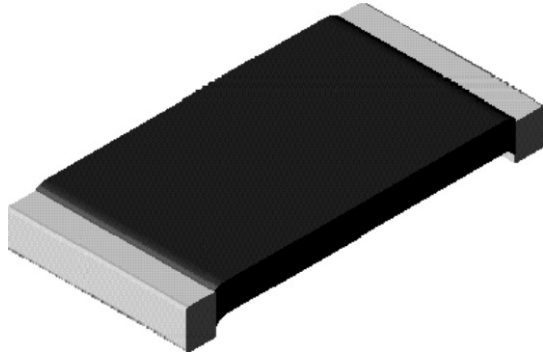


Improved Stability (0.25 % and 0.5 %), Power Metal Strip® Resistors Low Value (0.01 Ω to 0.1 Ω), Surface Mount



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)
- Lead (Pb)-free construction is RoHS compliant
- Very low inductance 0.5 nH to 2 nH
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 μV/°C)



RoHS
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS			
GLOBAL MODEL	POWER RATING $P_{70\text{ }^\circ\text{C}}$ W	RESISTANCE RANGE Ω	WEIGHT (typical) g/1000 pieces
WSLS2512	1.0	0.01 - 0.1	63.6

Note

- Part Marking: Value, RTC/Stability code

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	WSLS2512 RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°C	± 75
Operating Temperature Range	°C	- 65 to + 170
Maximum Working Voltage	V	$(P \times R)^{1/2}$

GLOBAL PART NUMBER INFORMATION																	
NEW GLOBAL PART NUMBERING: 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	L = mΩ* R = Decimal 5L000 = 0.005 Ω R0100 = 0.01 Ω * use "L" for resistance value < 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 - 99 as applicable												

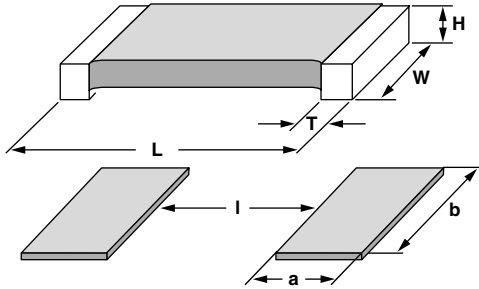


WSLS2512, Improved Stability

Improved Stability (0.25 % and 0.5 %),
Power Metal Strip® Resistors
Low Value (0.01 Ω to 0.1 Ω), Surface Mount

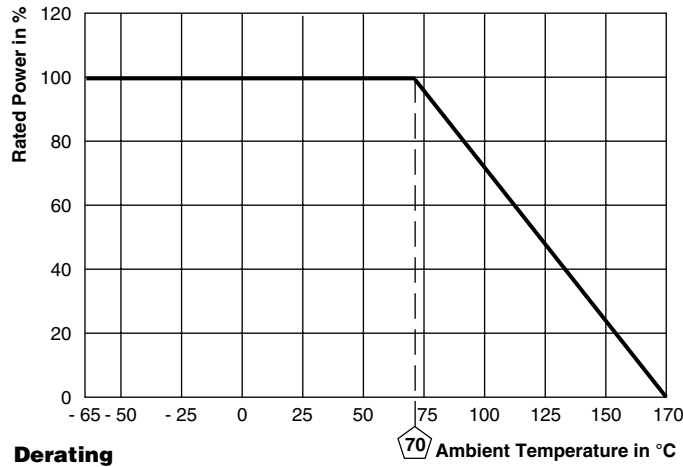
Vishay Dale

DIMENSIONS



MODEL	DIMENSIONS in inches [millimeters]			
	L	W	H	T
WSLS2512	0.250 ± 0.010	0.125 ± 0.010	0.025 ± 0.010	0.030 ± 0.010
	[6.35 ± 0.254]	[3.18 ± 0.254]	[0.635 ± 0.254]	[0.762 ± 0.254]

MODEL	SOLDER PAD DIMENSIONS in inches [millimeters]		
	a	b	l
WSLS2512	0.065	0.145	0.160
	[1.65]	[3.68]	[4.06]



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) ΔR	
Short Time Overload	5 x rated power for 5 s for WSL2512 size or smaller	± (0.5 % + 0.005 Ω) ΔR	
Low Temperature Operation	- 65 °C for 45 min	± (0.5 % + 0.005 Ω) ΔR	
High Temperature Exposure	1000 h at + 170 °C	± (1.0 % + 0.005 Ω) ΔR	
Bias Humidity	+ 85 °C, 85 % RH, 10 % Bias, 1000 h	± (0.5 % + 0.005 Ω) ΔR	
Mechanical Shock	100 g's for 6 ms, 5 pulses	± (0.5 % + 0.005 Ω) ΔR	
Vibration	Frequency varied 10 to 2000 Hz in 1 min, 3 directions, 12 h	± (0.5 % + 0.005 Ω) ΔR	
Load Life	2000 h at 70 °C, 1.5 h "ON", 0.5 h "OFF"	± 0.25 % ΔR	± 0.5 % ΔR
Resistance to Solder Heat	+ 260 °C Solder, 10 to 12 s dwell, 25 mm/s emergence	± (0.5 % + 0.005 Ω) ΔR	
Moisture Resistance	MIL-STD-202, Method 106, 0 % power, 7b not required	± (0.5 % + 0.005 Ω) ΔR	

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-481-2



Disclaimer

All product specifications and data are subject to change without notice.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained herein or in any other disclosure relating to any product.

Vishay disclaims any and all liability arising out of the use or application of any product described herein or of any information provided herein to the maximum extent permitted by law. The product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein, which apply to these products.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications unless otherwise expressly indicated. Customers using or selling Vishay products not expressly indicated for use in such applications do so entirely at their own risk and agree to fully indemnify Vishay for any damages arising or resulting from such use or sale. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

Product names and markings noted herein may be trademarks of their respective owners.