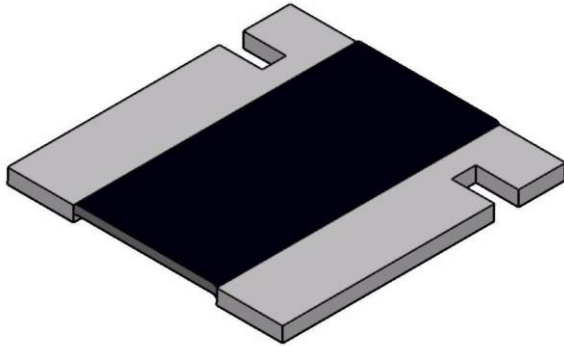


Power Metal Strip® Resistors, Low Value (down to 0.001 Ω), Surface Mount, 4-Terminal



FEATURES

- 4-Terminal design allows for 0.5 % resistance tolerance down to 0.003 Ω
- 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 (down to 0.001 Ω)
- All welded construction
- Solid metal Nickel-chrome alloy resistive element with low TCR (< 20 ppm/°C)
- Solderable terminations
- Low thermal EMF (< 3 μV/°C)
- Very low inductance, 0.5 nH to 5 nH
- Excellent frequency response to 50 MHz
- Lead (Pb)-free version is RoHS compliant



RoHS* COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS			
GLOBAL MODEL	POWER RATING $P_{70\text{ }^\circ\text{C}}$ W	TOLERANCE %	RESISTANCE RANGE Ω
WSL3637	3.0	0.5 & 1.0	0.001 - 0.01

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	WSL3637
Temperature Coefficient	ppm/°C	0.001 Ω - 0.0029 Ω = ± 75 0.003 Ω - 0.010 Ω = ± 50
Operating Temperature Range	°C	- 65/+ 170
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Weight/1000 pcs	g	274.3

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: WSL36375L000FTA (preferred part numbering format)

W	S	L	3	6	3	7	5	L	0	0	0	F	T	A		
GLOBAL MODEL WSL3637			VALUE L = Miliohm* R = Decimal 5L000 = 0.005 Ω R0100 = 0.01 Ω * use "L" for resistance values < 0.01 Ω				TOLERANCE D = ± 0.5 % F = ± 1.0 %		PACKAGING EA = Lead (Pb)-free, Tape/Reel EK = Lead (Pb)-free, Bulk TA = Tin/Lead, Tape/Reel (R86) BA = Tin/Lead, Bulk (B43)				SPECIAL (Dash Number) (up to 2 digits) From 1 - 99 as applicable			

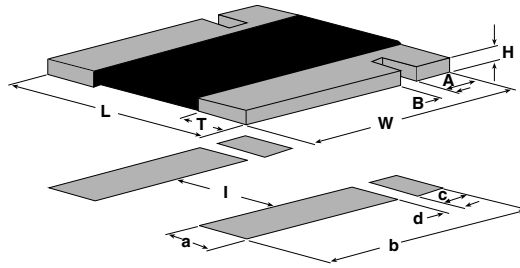
Historical Part Number example: WSL3637 0.005 Ω 1 % R86 (will continue to be accepted)

WSL3637	0.005 Ω	1 %	R86
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING

* Pb containing terminations are not RoHS compliant, exemptions may apply

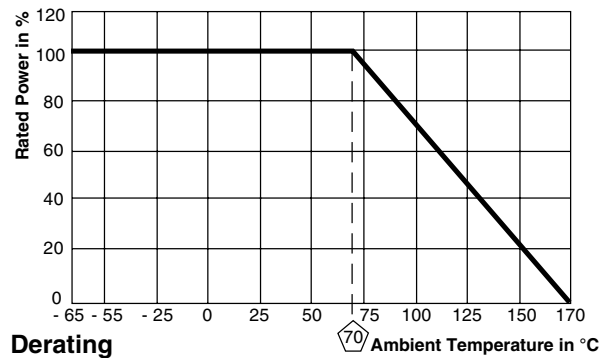


DIMENSIONS



MODEL	DIMENSIONS in inches [millimeters]						
	RESISTANCE RANGE Ω	W	L	H	T	A	B
WSL3637	0.002 - 0.01	0.370 ± 0.010 [9.40 ± 0.254]	0.360 ± 0.010 [9.14 ± 0.254]	0.025 ± 0.010 [0.635 ± 0.254]	0.086 ± 0.010 [2.18 ± 0.254]	0.061 ± 0.010 [1.55 ± 0.254]	0.032 ± 0.010 [0.813 ± 0.254]
	0.001 - 0.0019	0.370 ± 0.010 [9.40 ± 0.254]	0.360 ± 0.010 [9.14 ± 0.254]	0.025 ± 0.010 [0.635 ± 0.254]	0.138 ± 0.010 [3.51 ± 0.254]	0.061 ± 0.010 [1.55 ± 0.254]	0.032 ± 0.010 [0.813 ± 0.254]

MODEL	SOLDER PAD DIMENSIONS in inches [millimeters]					
	RESISTANCE RANGE Ω	a	b	c	d	i
WSL3637	0.002 - 0.01	0.116 [2.95]	0.390 [9.91]	0.066 [1.68]	0.024 [0.610]	0.178 [4.52]
	0.001 - 0.0019	0.168 [4.27]	0.390 [9.91]	0.066 [1.66]	0.024 [0.610]	0.074 [1.88]



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	- 55 °C to + 150 °C, 1000 cycles, 15 minutes at each extreme	± (0.5 % + 0.0005 Ω) ΔR
Short Time Overload	5 x Rated Power for 5 seconds	± (0.5 % + 0.0005 Ω) ΔR
Low Temperature Storage	- 65 °C for 24 hours	± (0.5 % + 0.0005 Ω) ΔR
High Temperature Exposure	1000 hours at + 170 °C	± (1.0 % + 0.0005 Ω) ΔR
Bias Humidity	+ 85 °C, 85 % RH, 10 % Bias, 1000 hours	± (0.5 % + 0.0005 Ω) ΔR
Mechanical Shock	100 g's for 6 milliseconds, 5 pulses	± (0.5 % + 0.0005 Ω) ΔR
Vibration	Frequency varied 10 to 2000 Hz in 1 minute, 3 directions, 12 hours	± (0.5 % + 0.0005 Ω) ΔR
Load Life	1000 hours at rated power, + 70 °C, 1.5 hours "ON", 0.5 hours "OFF"	± (1.0 % + 0.0005 Ω) ΔR
Solder Heat	+ 260 °C Solder, 10 - 12 second dwell, 25 mm/second emergence	± (0.5 % + 0.0005 Ω) ΔR
Moisture Resistance	MIL-STD-202, Method 106, 0 % power, 7a and 7b not required	± (0.5 % + 0.0005 Ω) ΔR

PACKAGING				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSL3637	16 mm/Embossed Plastic	330 mm/13"	4000	EA

Note
• Embossed carrier tape per EIA-481-2



Notice

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