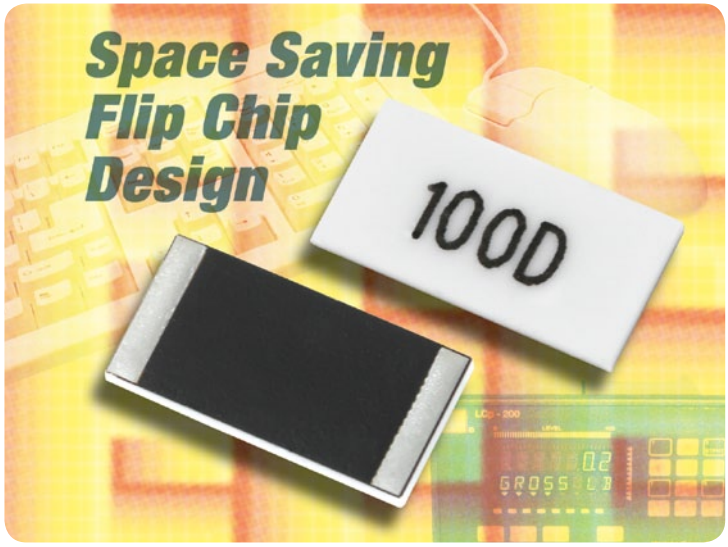
POWER METAL STRIP® RESISTOR

WSL...E

Resistors - Space Saving Flip Chip Design

Power Metal Strip® Flip Chip (Extended Range)



KEY BENEFITS

- Very low TCR of 15 ppm/°C
- Long-term stability (± 0.5 % + 0.01 Ω)
- Fillet-less flip chip technology for space savings (reduction of mounting occupation area)
- SMD alternative for low power, leaded wirewound resistors
- Good overload and pulse handling capability (5 times rated power for 5 seconds)
- No noise, no voltage coefficient

APPLICATIONS

- Base station controllers, DC/DC converters, scales, test equipment, PCMCIA, VXO, TCXO, digital and analog video processing, motor controllers

RESOURCES

- Datasheet: WSL...E - http://www.vishay.com/doc?20033
- For technical questions contact ww2bresistors@vishay.com

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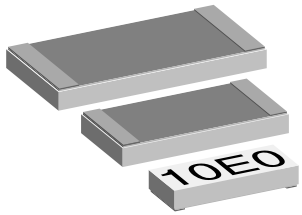

FEATURES

- SMD alternative for low power leaded wirewound resistors
- Excellent stability in different environmental conditions (< 0.5 % change in resistance)
- Superior overload and pulse handling capability as compared to thin film (as much as 2 x better)
- Low TCR, down to ± 15 ppm/K
- Low noise: < 0.01 μV_{RMS}/V
- Very low inductance: < 0.08 µH
- Voltage coefficient: < 0.00001 %/V (< 0.1 ppm/V)
- Compliant to RoHS Directive 2002/95/EC

Pb-free

e3

RoHS COMPLIANT

GREEN (5-2008)** Available

Notes

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

** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	SIZE	POWER RATING $P_{70\,°C}$ W	LIMITING ELEMENT VOLTAGE (1) V	TEMPERATURE COEFFICIENT ± ppm/K	RESISTANCE VALUE RANGE (2) Ω		E-SERIES
					Tol. ± 0.5 %	Tol. ± 1.0 %	
WSL1506E	1506	0.25	63	15, 25	0.5 to 10K	0.5 to 10K	96
WSL2010E	2010	0.5	100	15, 25	0.5 to 10K	0.5 to 10K	96
WSL2512E	2512	1.0	100	15, 25	0.5 to 10K	0.5 to 10K	96

Notes

- **Ask about further value ranges, tighter tolerances and TCR's.**
- Power rating depends on the max. temperature at the solder point, the component placement density and the substrate material.
- 4-digit marking, according to MIL-PRF-55342 (except as noted in Ordering Information table), on top side.

(1) Rated voltage: $\sqrt{P \times R}$.

(2) Contact factory using e-mail address at bottom of this page for resistance values available between 0.5 to 10 for 1506 and 0.5 to 100 for 2010 and 2512.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	WSL1506E	WSL2010E	WSL2512E
Rated dissipation at 70 °C	W	0.25	0.5	1.0
Insulation voltage (1 min)	$V_{DC/AC}$ peak	200	200	200
Thermal resistance	K/W	≤ 220 (3)	≤ 88 (3)	≤ 65 (3)
Insulation resistance	MΩ	> 10^6		
Operating temperature range	°C	- 55 to + 150		
Weight/1000 pieces	g	12	25	35

Note

(3) Depending on solder pad dimensions.

GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: WSL1506E10E0XEA

W	S	L	1	5	0	6	E	1	0	E	0	X	E	A		

GLOBAL MODEL	RESISTANCE VALUE AND TOLERANCE			TCR CODE	PACKAGING CODE	SPECIAL
WSL1506E	**Resistance Tolerance (±)**	**Multiplier**	**Symbol**	**E** = ± 25 ppm/K **X** = ± 15 ppm/K	**EA** = Lead (Pb)-free, tape/reel **TA** = Tape/reel (R86)	(Dash number) (up to 2 digits) From **1 to 99** as applicable
	0.5	X1	W			
	0.5	X1000	X			
	0.5	X1 000 000	Y			
	1.0	X1	D			
	1.0	X1000	E			
	1.0	X1 000 000	F			

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