# WSK1206



Vishay Dale

# Power Metal Strip<sup>®</sup> Resistors, High Power, Surface Mount, 4-Terminal



### FEATURES

- 4-terminal design
- Ideal for all types of current sensing, voltage division and pulse applications
- Proprietary processing technique produces extremely low resistance values
- Durable with all-welded construction
- All welded construction
- Solid metal nickel-chrome or manganesecopper resistive element with low TCR (< 20 ppm/°C)</li>
- Low thermal EMF (< 3 μV/°C)
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

STANDARD ELECTRICAL SPECIFICATIONS								
GLOBAL MODEL	SIZE	POWER RATING P <sub>70 °C</sub> W	RESISTANCE VALUE RANGE $\Omega$				WEIGHT (typical)	
			Tol. ± 0.1 %	Tol. ± 0.25 %	Tol. ± 0.5 %	Tol. ± 1.0 %	g/1000 pieces	
WSK1206	1206	0.25	0.04 to 0.05	0.02 to 0.05	0.01 to 0.05	0.01 to 0.05	16	

Notes

Part marking: due to resistor size limitation, parts will be marked with only the resistance value.

Resistance values are available per WSL decade table (<u>www.vishay.com/doc?30117</u>).

TECHNICAL SPECIFICATIONS					
PARAMETER	UNIT	RESISTOR CHARACTERISTICS			
Component temperature coefficient (including terminal) <sup>(1)</sup>	ppm/°C	± 35			
Element TCR <sup>(2)</sup>	ppm/°C	< 20			
Operating temperature range	°C	-65 to +170			
Maximum working voltage (3)	V	(P x R) <sup>1/2</sup>			

Notes

<sup>(1)</sup> Component TCR - total TCR that includes the TCR effects of the resistor element and the copper terminal.

(2) Element TCR - only applies to the alloy used for the resistor element; refer to item 1 in the construction illustration on the following page.

<sup>(3)</sup> Maximum working voltage - the WSL is not voltage sensitive, but is limited by power / energy dissipation and is also not ESD sensitive.



ROHS COMPLIANT

HALOGEN

FREE

**GREEN** 

<u>(5-2008)</u>



# WSK1206

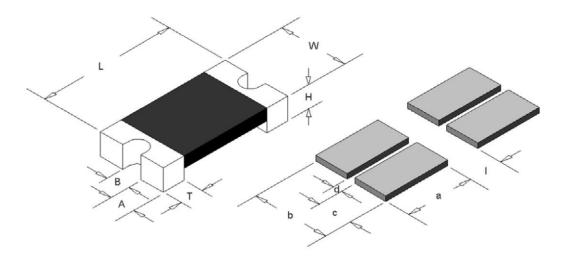
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GLOBAL PART NUMBER INFORMATION							
Global Part Numbering example: WSK1206R0150FEA							
W S K 1 2 0 6 R 0 1 5 0 F E A							
GLOBAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING CODE (1)	SPECIAL			
WSK1206	<b>R</b> = decimal <b>R0100</b> = 0.01 Ω	$B = \pm 0.1 \%$ $C = \pm 0.25 \%$ $D = \pm 0.5 \%$ $F = \pm 1.0 \%$	EA = lead (Pb)-free, tape / reel EK = lead (Pb)-free, bulk	(Dash number) (up to 2 digits) From <b>1</b> to <b>99</b> as			
		<b>F</b> = ± 1.0 %		applicable			

#### Note

(1) Packaging code: EB (lead (Pb)-free) and TB (tin / lead) are non-standard packaging codes designating 1000 piece reels. These non-standard packaging codes are identical to our standard EA (lead (Pb)-free) and TA (tin / lead), except that they have a package quantity of 1000 pieces.

#### DIMENSIONS

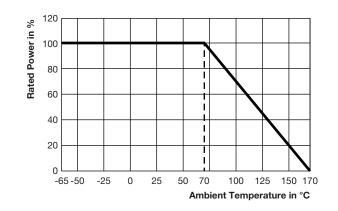


MODEL	DIMENSIONS in inches (millimeters)							
	L	w	н	т	Α	В		
WSK1206	0.126 ± 0.010 (3.20 ±0.254)	0.063 ± 0.010 (1.60 ± 0.254)	0.025 ± 0.010 (0.635 ± 0.254)	0.020 ± 0.010 (0.508 ± 0.254)	0.023 ± 0.010 (0.584 ± 0.254)	0.018 ± 0.010 (0.457 ± 0.254)		

MODEL	SOLDER PAD DIMENSIONS in inches (millimeters)						
	а	b	С	d	I		
WSK1206	0.040 (1.01)	0.070 (1.778)	0.030 (0.762)	0.01 (0.254)	0.070 (1.778)		

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#### DERATING



PERFORMANCE					
TEST	CONDITIONS OF TEST	TEST LIMITS			
Thermal shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± (0.5 %) ∆R			
Short time overload	5x rated power for 5 s	± (0.5 %) ∆R			
Low temperature operation	-65 °C for 45 min	± (0.5 %) ∆R			
High temperature exposure	1000 h at +170 °C	± (1.0 %) ∆R			
Bias humidity	+85 °C, 85 % RH, 10 % bias, 1000 h	± (0.5 %) ∆R			
Mechanical shock	100 g's for 6 ms, 5 pulses	± (0.5 %) ∆R			
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± (0.5 %) ∆R			
Load life	1000 h at +70 °C, 1.5 h "ON", 0.5 h "OFF"	± (1.0 %) ∆R			
Resistance to solder heat	+260 °C solder, 10 s to 12 s dwell, 25 mm/s emergence	± (0.5 %) ∆R			
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7b not required	± (0.5 %) ∆R			

PACKAGING						
MODEL	REEL					
MODEL	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE		
WSK1206	8 mm/embossed plastic	178 mm/7"	4000	EA		

Notes

• Embossed carrier tape per EIA-481.

• Wirewound, Metal Film, and Power Metal Strip® Packaging (www.vishay.com/doc?20051).



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