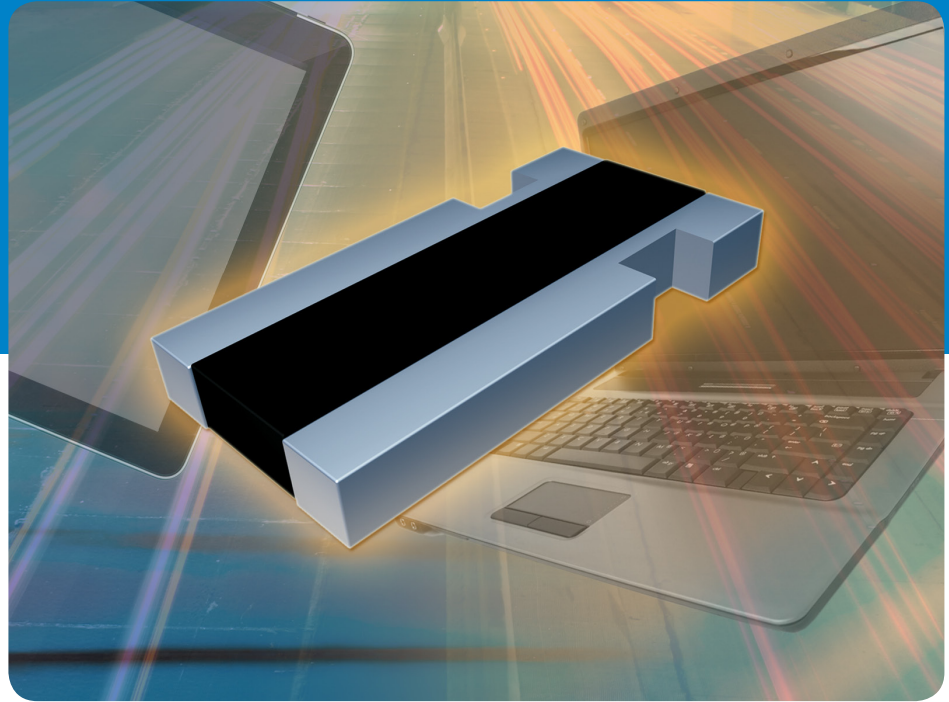




POWER METAL STRIP® RESISTORS

WSK0612



1.0 W, 0612 Size, Four-Terminal, Surface-Mount Power Metal Strip® Resistors

KEY BENEFITS

- Four-terminal design allows resistance tolerances to 1 %
- Reverse geometry results in 1 W power capability with very small 0612 package size
- Very low resistance values (0.5 m Ω to 5.0 m Ω)

APPLICATIONS

Current Sense Resistor

Computer:

- DC/DC converters, VRMs for notebook computers, Li-Ion battery management/safety

Consumer:

- DC/DC converters and control management in LCD TVs

Automotive:

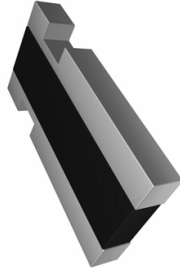
- Electronic controls (engine and transmission controls, audio electronics, climate controls, anti-lock brakes, and more)

1.0 W, 0612 Size, Four-Terminal, Surface-Mount Power Metal Strip® Resistors

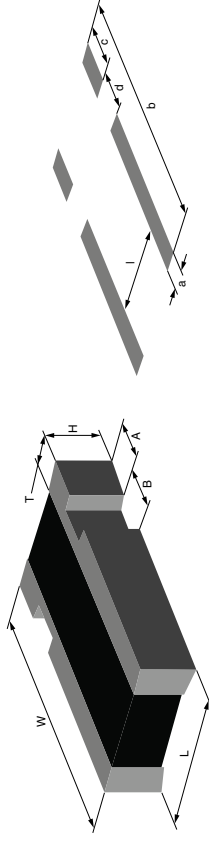


FEATURES

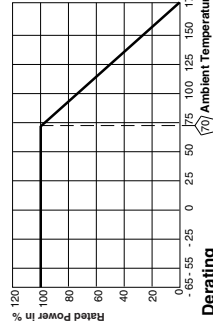
- 4-Terminal design
- Ideal for all types of current sensing, voltage division and pulse applications
- Proprietary processing technique produces extremely low resistance values
- Durable with all-welded construction
- Low thermal EMF (< 3 µV/°C)
- Solid metal nickel-chrome or manganese-copper resistive element with low TCR (< 20 ppm/°C)
- Compliant to RoHS Directive 2002/95/EC



DIMENSIONS



MODEL	DIMENSIONS in inches (millimeters)					
	L	W	H	T	A	B
WSK0612	0.060 ± 0.010 (1.50 ± 0.254)	0.120 ± 0.010 (3.05 ± 0.254)	0.015 ± 0.010 (0.381 ± 0.254)	0.015 ± 0.010 (0.381 ± 0.254)	0.020 ± 0.005 (0.51 ± 0.127)	0.020 ± 0.005 (0.51 ± 0.127)
MODEL	SOLDER PAD DIMENSIONS in inches (millimeters)					
	a	b	c	d	i	I
WSK0612	0.040 (1.01)	0.135 (3.43)	0.030 (0.762)	0.015 (0.381)	0.030 (0.76)	0.030 (0.76)



Derating

STANDARD ELECTRICAL SPECIFICATIONS			
GLOBAL MODEL	POWER RATING P ₇₀ °C W	TOLERANCE ± %	RESISTANCE VALUE RANGE Ω
WSK0612	1.0	± 1.0	0.50m to 5.0m
			0.5m, 0.75m, 1m, 2m, 3m, 4m, 5m
			WEIGHT (typical) g/1000 pieces
			8.2

Note

(1) Other values may be available, contact factory.

TECHNICAL SPECIFICATIONS	
PARAMETER	UNIT
Temperature coefficient	ppm/°C
Operating temperature range	°C
Maximum working voltage	V
	- 65 to + 170 (P x R) ^{1/2}

GLOBAL PART NUMBER INFORMATION
Global Part Numbering example: WSK06121L00FEA

W	S	K	0	6	1	2	1	L	0	0	0	F	E	A
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GLOBAL MODEL: WSK0612

RESISTANCE VALUE:
 L = mΩ
 L5000 = 0.0005 Ω
 L7500 = 0.00075 Ω
 L1000 = 0.001 Ω
 L2000 = 0.002 Ω
 L3000 = 0.003 Ω
 L4000 = 0.004 Ω
 L5000 = 0.005 Ω

TOLERANCE CODE:
F = ± 1.0 %

PACKAGING CODE:
EA = Lead (Pb)-free, taper/reel
EK = Lead (Pb)-free, bulk

SPECIAL:
(Dash number)
(Up to 2 digits)
From 1 to 99 as applicable

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

PACKAGING			
MODEL	REEL		
	TAPE WIDTH	DIAMETER	PIECES/REEL
WSK0612	8 mm/embossed plastic	178 mm/7"	4000
			CODE
			EA

Note

- Embossed Carrier Tape per EIA-481.

Build Vishay into your Design

Revision 08-Dec-10

** Please see document "Vishay Material Category Policy": www.vishay.com/doc/299902

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For technical questions, contact www2bresistors@vishay.com