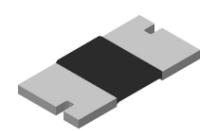
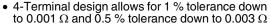
Vishay Dale



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



FEATURES





 Ideal for all types of precision current sensing, voltage division and pulse applications including switching and linear power supplies, instruments, power amplifiers



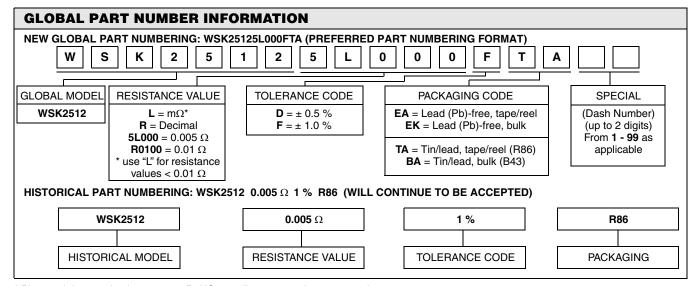
- Proprietary processing technique produces extremely low resistance values (down to 0.001 Ω) COMPLIANT
- All welded construction
- Solid metal Nickel-Chrome or Manganese-Copper alloy resistive element with low TCR (< 20 ppm/°C)
- Solderable terminations
- Very low inductance 0.5 nH to 5 nH
- Excellent frequency response to 50 MHz
- Lead (Pb)-free version is RoHS compliant

STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	POWER RATING P70 °C	RESISTANCE RANGE Ω			
WOBEL	P ₇₀ °c W	± 0.5 %	± 1.0 %		
WSK2512	1.0	0.003 - 0.025	0.001 - 0.025		

Note

• Part Marking: DALE, Value, Tolerance; due to resistor size limitations some resistance values will be marked with only the resistance value

TECHNICAL SPECIFICATIONS					
PARAMETER	UNIT	WSK2512			
Temperature Coefficient	ppm/°C	$0.001~\Omega$ - $0.0029~\Omega$ = ± 250 $0.003~\Omega$ - $0.0049~\Omega$ = ± 75 $0.005~\Omega$ - $0.025~\Omega$ = ± 35			
Operating Temperature Range	°C	- 65 to + 170			
Maximum Working Voltage	V	$(P \times R)^{1/2}$			
Weight/1000 pieces	g	63.6			



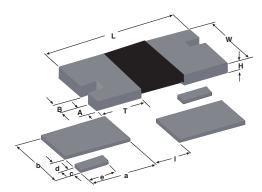
^{*} Pb containing terminations are not RoHS compliant, exemptions may apply



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

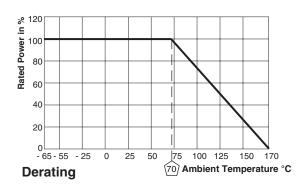
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DIMENSIONS



	DIMENSIONS in inches [millimeters]						
MODEL	$\begin{array}{c} \textbf{RESISTANCE} \\ \textbf{RANGE} \ \Omega \end{array}$	L	w	Н	Т	Α	В
WSK2512	0.001 - 0.0049	0.250 ± 0.010 [6.35 ± 0.254]	0.125 ± 0.010 [3.18 \pm 0.254]	0.025 ± 0.010 [0.635 ± 0.254]	0.087 ± 0.010 [2.21 ± 0.254]	0.030 ± 0.010 [0.762 ± 0.254]	0.020 ± 0.010 [0.508 \pm 0.254]
	0.005 - 0.025	0.250 ± 0.010 [6.35 ± 0.254]	0.125 ± 0.010 [3.18 \pm 0.254]	0.025 ± 0.010 [0.635 ± 0.254]	0.047 ± 0.010 [1.19 ± 0.254]	0.030 ± 0.010 [0.762 ± 0.254]	0.020 ± 0.010 [0.508 ± 0.254]

MODEL		SOLDER PAD DIMENSIONS in inches [millimeters]						
WODEL	а	b	С	d	е	I		
WSK2512	0.125 [3.18]	0.130 [3.30]	0.030 [0.76]	0.020 [0.51]	0.055 [1.40]	0.065 [1.65]		



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

PACKAGING						
MODEL	REEL					
	TAPE WIDTH	DIAMETER	RIECES/REEL	CODE		
WSK2512	12 mm/Embossed Plastic	178 mm/7"	2000	R86		

Note

• Embossed carrier tape per EIA-481-1A



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