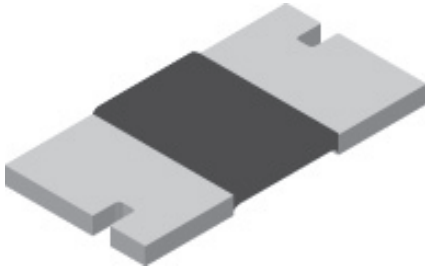


## Power Metal Strip<sup>®</sup> Resistors, Low Value, Surface Mount, 4 - Terminal



### FEATURES

- 4-Terminal design allows for 1% tolerance down to 0.001Ω and 0.5% tolerance down to 0.003Ω
- 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
- All welded construction
- Solid metal Nickel-Chrome or Manganese-Copper alloy resistive element
- Solderable terminations
- Very low inductance 0.5nH to 5nH
- Excellent frequency response

STANDARD ELECTRICAL SPECIFICATIONS			
GLOBAL MODEL	POWER RATING P <sub>70</sub> °C W	RESISTANCE RANGE Ω	
		± 0.5%	± 1.0%
WSK2512	1.0	0.003 – 0.025	0.001 – 0.025

• 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	0.001Ω - 0.0029Ω = ± 250 0.003Ω - 0.0049Ω = ± 75 0.005Ω - 0.025Ω = ± 35
Operating temperature range	°C	- 65 / + 170
Maximum Working Voltage	V	(P x R) <sup>1/2</sup>
Weight/1000 pieces	g	63.6

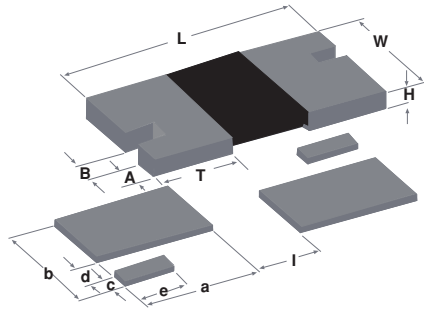
### GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: WSK25125L000FEA (preferred part numbering format)

W	S	K	2	5	1	2	5	L	0	0	0	F	E	A		
GLOBAL MODEL WSK2512			RESISTANCE VALUE L = Milliohm R = Decimal 5L000 = 0.005Ω R0100 = 0.01Ω			TOLERANCE CODE D = ± 0.5% F = ± 1.0%			PACKAGING CODE EA = Lead Free, Tape/Reel EK = Lead 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			

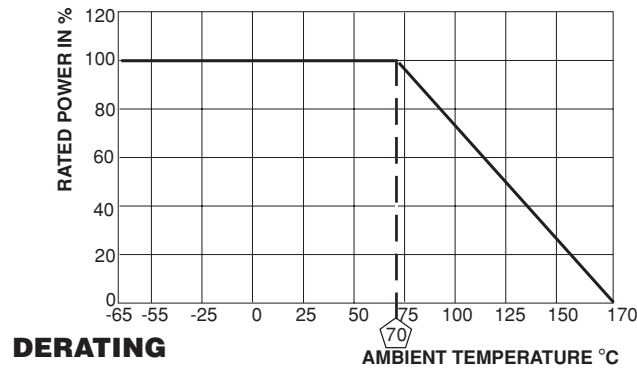
Historical Part Numbering: WSK2512 0.005Ω 1% EA (will continue to be accepted)

WSK2512	0.005Ω	1%	EA
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE CODE	PACKAGING

**DIMENSIONS**


MODEL	DIMENSIONS in inches [millimeters]						
	RESISTANCE RANGE $\Omega$	L	W	H	T	A	B
WSK2512	0.001 – 0.0049	0.250 ± 0.010 [6.35 ± 0.254]	0.125 ± 0.010 [3.18 ± 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 ± 0.254]
	0.005 - 0.025	0.250 ± 0.010 [6.35 ± 0.254]	0.125 ± 0.010 [3.18 ± 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]					
	a	b	c	d	e	l
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 minutes at each extreme	± (0.5% + 0.0005 $\Omega$ ) $\Delta$ R
Short Time Overload	5 x power for 5 seconds	± (0.5% + 0.0005 $\Omega$ ) $\Delta$ R
Low Temperature Storage	- 65°C for 24 hours	± (0.5% + 0.0005 $\Omega$ ) $\Delta$ R
High Temperature Exposure	1000 hours at + 170°C	± (1.0% + 0.0005 $\Omega$ ) $\Delta$ R
Bias Humidity	+ 85°C, 85% RH, 10% Bias, 1000 hours	± (0.5% + 0.0005 $\Omega$ ) $\Delta$ R
Mechanical Shock	100g's for 6 milliseconds, 5 pulses	± (0.5% + 0.0005 $\Omega$ ) $\Delta$ R
Vibration	Frequency varied 10 to 2,000Hz in one minute, 3 directions, 12 hours	± (0.5% + 0.0005 $\Omega$ ) $\Delta$ R
Load Life	1,000 hours @ rated power, + 70°C, 1.5 hours "ON", 0.5 hours "OFF"	± (1.0% + 0.0005 $\Omega$ ) $\Delta$ R
Resistance to Solder Heat	+ 260°C Solder, 10 – 12 second dwell, 25mm/second emergence	± (0.5% + 0.0005 $\Omega$ ) $\Delta$ R
Moisture Resistance	MIL-STD-202 Method 106, 0% power, 7a and 7b not required	± (0.5% + 0.0005 $\Omega$ ) $\Delta$ R

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

Embossed carrier tape per EIA-481-1A