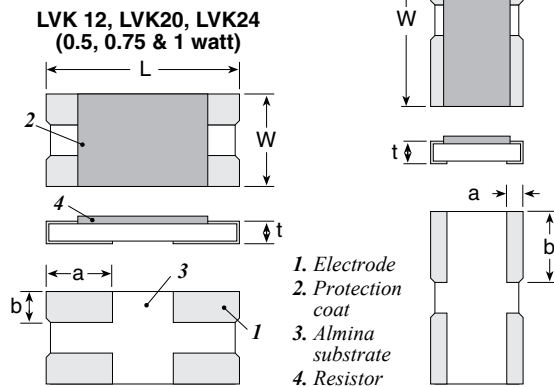


LVK Series

Four Terminal High Precision Current Sense



Current sense resistors enable the measurement of current flow in a circuit by monitoring a voltage drop across a precisely calibrated resistance. The LVK chip features four terminals, also known as a "Kelvin" configuration. This configuration enables current to be applied through two opposite terminals and a sensing voltage to be measured across the other two terminals, eliminating the resistance and temperature coefficient of the terminals for a more accurate current measurement.

Isolating the voltage and current terminals (see schematic) facilitates a very accurate current measurement. Ohmite's proprietary technology offers an excellent Temperature Coefficient of Resistance (TCR) even for very low resistance values. The resistive element consists of a durable, anti-corrosive metal alloy that combines reliable performance with the ability to withstand harsh environments.

FEATURES

- Designed for automatic insertion
- Industry standard sizes
- High-precision kelvin connect capability in a small package

SPECIFICATIONS

Resistance Range:
0.001Ω - 0.05Ω

Operating Temperature Range:
-40°C to +125°C

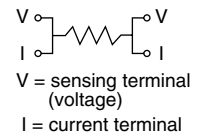
Rated Ambient Temperature:
+70°C

Resistance Tolerance:
0.5% and 1% standard

Temperature Coefficient:
LVK12, LVK20, LVK24: 50ppm standard
LVK25: 100ppm, 200ppm, or 300ppm based on resistance value

Terminals: 100% matte tin

SCHEMATIC

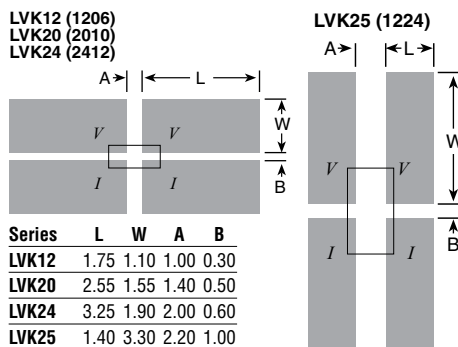


Series	Pkg. Size	Power Rating (W @70°C)	Resistance Range (Ω)	TCR (ppm/°C)	Tolerance	Available Values
LVK12	1206	0.5W	0.01-0.05	50ppm	0.5%, 1%	E12
LVK20	2010	0.75W	0.01-0.05	50ppm	0.5%, 1%	E12
LVK24	2412	1.0W	0.01-0.05	50ppm	0.5%, 1%	E12
LVK25	1224	2.0W	0.001-0.004 0.005-0.01	300ppm 200ppm 100ppm	1%	1, 2, 3, 4, 5, 6, 7, 8, 9, 10 mΩ

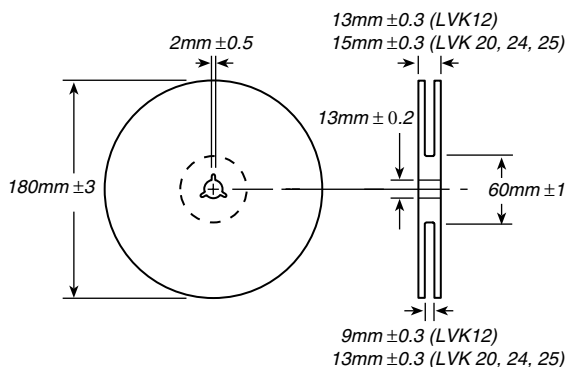
DIMENSIONS (mm)

Size	L	W	t	a	b
LVK12 (1206)	3.2 ±0.2	1.6 ±0.2	0.5 ±0.15	1.0 ±0.2	0.55 ±0.2
LVK20 (2010)	5.0 ±0.2	2.5 ±0.2	0.5 ±0.15	1.7 ±0.2	0.9 ±0.2
LVK24 (2412)	6.4 ±0.2	3.2 ±0.2	0.5 ±0.15	2.1 ±0.2	1.2 ±0.2
LVK25 (1224)	3.2 ±0.2	6.4 ±0.2	0.5 ±0.2	0.4 ±0.2	2.7 ±0.2

LAND PATTERN (mm)



REEL (mm)



ORDERING INFORMATION

RoHS Compliant				
LVK25R005FER				
Series	Case Size	Ohms	Tolerance	Taping Code
12 = 1206	20 = 2010	R005 = 0.005	D = 0.5%	R = 1,000 pc/reel
24 = 2412	25 = 1224		F = 1%	

Check product availability at www.ohmite.com

STANDARD VALUES

LVK12	LVK20	LVK24	LVK25
1% Tolerance			
0.01	0.01	0.01	0.001
0.012		0.012	0.002
		0.015	0.003
			0.005
0.02	0.02	0.02	
0.024	0.027		
0.03	0.03	0.03	0.01
		0.039	
		0.039	
0.047		0.047	
0.05	0.05	0.05	
0.5% Tolerance			
0.01	0.01	0.01	
0.02	0.02	0.02	
0.03	0.03	0.03	
0.05	0.05	0.05	