

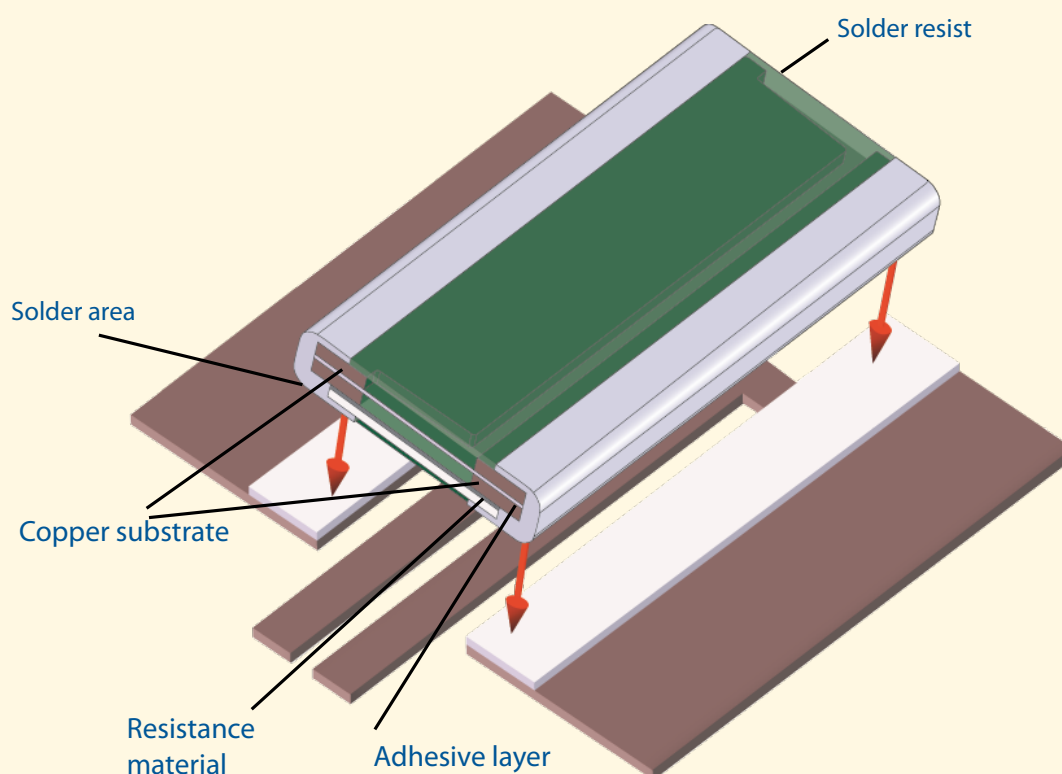
VLx – Maximum performance in a minimal package

VLP (1020), VLK (0612)

Low resistance value with change of length to with ration

Product features and customer benefits

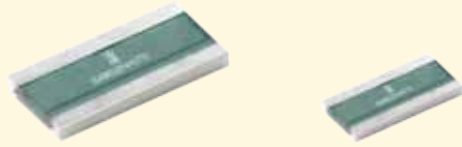
- Standard solder pads
 - Internal heat resistance (R_{thi}) < 20 K/W
 - TCR < 50 ppm/K
 - Small size
 - Very high puls power
 - AEC Q 200 qualification in preparation
- Larger solder area compared to short side termination type count for:
- Mechanical strength of solder joint and component
 - Withstand high temperature and load cycles
 - Higher heat dissipation from solder joint to printed circuit board
 - High mechanical stability



The VLx series is suitable for the following applications

- Sensing resistors for power hybrid modules (DCB)
- Control units in automotive engineering
- Power modules
- Frequency converters
- Switching power supply

VLx – Maximum performance on small space



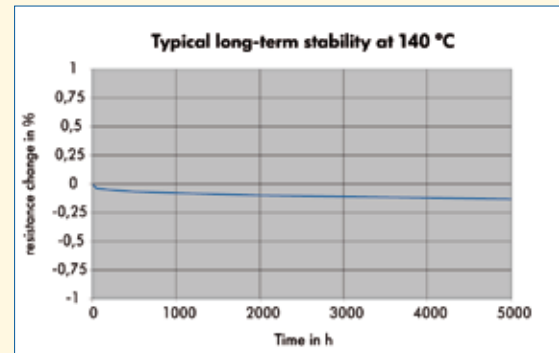
Scale 5:1

Type	VLP	VLK
Size	1020	0612
Power dissipation	2 W	1 W
Tolerance	1 %, 2 %, 5 %	1 % 5 %
TC (20 °C to 60 °C)	< 50 ppm/K	< 50 ppm/K
Cont. current	45 A	20 A
Pulse energy	up to 0.1 J	up to 0.03 J
Rthi	< 20 K/W	< 30 K/W
Resistance range	1, 3, 10, 50 mΩ *	1, 3, 10, 50 mΩ *

* other values on request

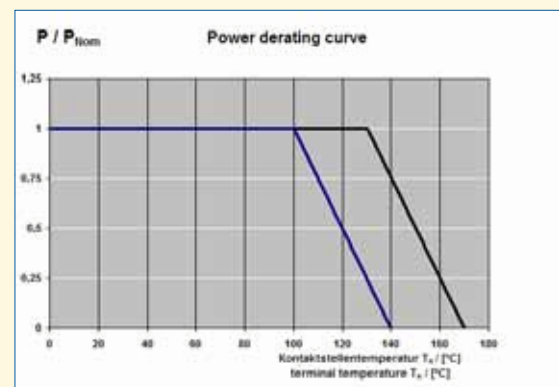
Resistance material Manganin®

- Negligible low thermal EMF versus copper, below 1 $\mu\text{V/K}$
- Good long-term stability (below 0.3 % under nominal power)
- Nearly independent of ambient temperature in the application range from -40 to +170 °C (low TCR values)



Benefits and features

- Tin/copper plated terminals
- Reflow, infrared or wave soldering
- Extremely low internal heat resistance
- High nominal and pulse power
- Standard tape and reel packaging



ISABELLENHÜTTE

ISABELLENHÜTTE Heusler GmbH & Co. KG
 Eibacher Weg 3-5 · 35683 Dillenburg, Germany
 P.O. Box 1453 · 35664 Dillenburg, Germany
 Phone +49 27 71/9 34-0 · Fax +49 27 71/2 30 30
www.isabellenuette.de · sales.components@isabellenuette.de