

TDK Inductors — VLP, SLF, RLF, SPM, VLFCF, VLF and VLS Series



VLP Series:

This is a SMD power inductor for power supplies that has an open magnetic path construction based on a low-height drum core (upright). User terminals are contact-formed on the bottom of the drum core using copper (finished with tin plating). It uses crosswise windings and supports large currents.

SLF Series:

SLF series large current lead less inductors have been developed for SMD of power circuits. High performance ferrite core material and low-profile design, ensure superior characteristics and high reliability

Features: • Low-profile SMD type • Magnetic shielded type suitable for high density mounting • Provided with embossed carrier tape packaging for automatic mounting machines • Only reflow soldering is applicable

Characteristics: Sizes SLF6028, SLF7032, and SLF7045: Operating temperature is -20°C ~ 85°C; Size SLF10145: Operating temperature is -20°C ~ 90°C; Size 12565 and 12575: Operating temperature is -20°C ~ 105°C

RLF Series:

This series of inductors is designed for power circuits that require a low profile, low inductance and large current such as those used in notebook PC's. Features: With the height at only 4.5mm and retaining the DC current superimposition characteristic, this inductor reduces DC resistance 20% to 50% lower than TDK's existing products. Applications: Choke coils in power circuit of notebook computers, LCD, DVD, entertainment electronics, etc. Specifications: • Operating Temperature Range: -20°C ~ 105°C • Storage Temperature Range: -40°C ~ 105°C

SPM Series:

Features: • Small footprint, low profile • High power handling capability • Small copper loss Specifications: • Operating Temperature Range: -40°C ~ 125°C (including self-temperature rise)

VLCF Series:

Features: • Miniature size • Generic use for portable DC to DC converter line • High magnetic shield construction should actualize high resolution for EMC protection Specifications: • Operating Temperature Range: -40°C ~ 105°C (including self-temperature rise)

VLF Series:

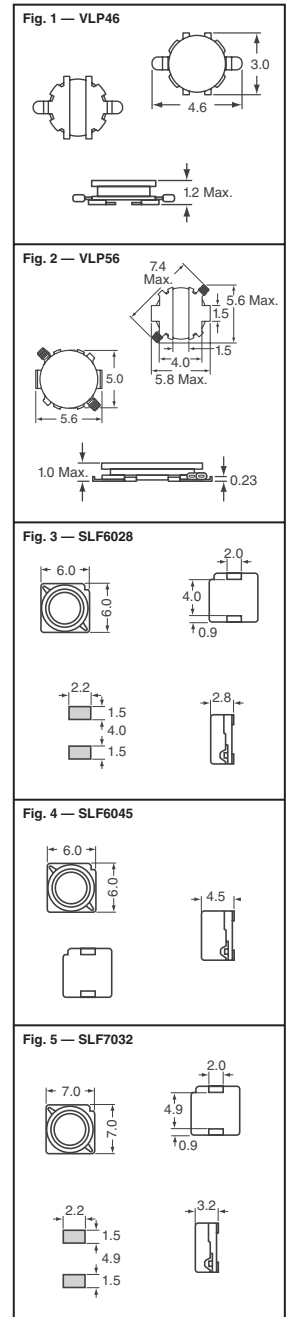
Features: • These are compact inductors for power line measuring at L2.6 x W2.8mm and 1mm in height, considerably smaller compared to inductors with comparable characteristics • They feature low coil resistance, making them suitable for large currents (e.g., 0.7A at 0.24Ω) • They offer an excellent shielding effect Applications: • For mobile phones, hard disk drives and DSCs Specifications: • Operating Temperature Range: -40°C ~ 105°C (including self-temperature rise)

VLS Series:

Features: • Miniature size • High magnetic shield construction should actualize high resolution for EMC protection Applications: • Generic use for portable DC to DC converter line • DVCs • DSCs • PDAs • LCD displays • Cellular phones • HDDs Specifications: • Operating Temperature Range: -40°C ~ 105°C (including self-temperature rise)

Dimensions in mm

Table with columns: Inductance (µH), Inductance Tolerance, Test Frequency (kHz), DC Res. Nominal (Ω ±20%), Rated Current (A), Digi-Key Part No., Cut Tape Price (10, 100), Digi-Key Part No., Qty., and TDK Part No. Includes sub-sections for VLP4612, VLP5610, SLF6028, SLF6045, SLF7032, and SLF7045 series.



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† Operating Temperature Range -40°C ~ 125°C ‡ Inductance is at 1/2 Idc1 power distribution.

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