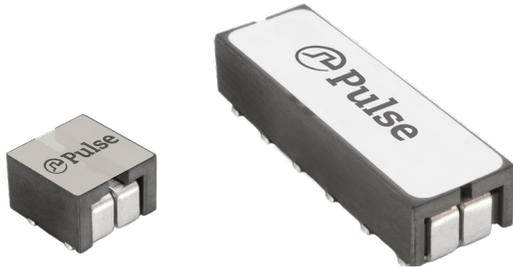


SMT Power Inductors

Power Beads - PA4684HL (2-Phase) and PA4718HL (6-Phase) Coupled inductors



- Ⓟ **Current Rating:** Over 70Apk
- Ⓟ **Height:** 8.5mm Max
- Ⓟ **Footprint:** PA4684HL (12.5mm x 12.0mm Max)
PA4718HL (36.5mm x 12.0mm Max)
- Ⓟ For use with Maxim Integrated Products Multi - Phase Controllers

Electrical Specifications @ 25°C - Operating Temperature -40°C to +130°C⁴

| Part Number | Number of Phases | Open Circuit Inductance (OCL) ¹ (nH Min) | | | Short Circuit Inductance (SCL) ² (nH Min) | | | Heating Current per Phase ³ (A) | DCR/phase (mohms Max) |
|-------------|------------------|--|-------------|--------------|---|-------------|--------------|---|--------------------------|
| | | 0Adc, 25°C | 18Adc, 25°C | 15Adc, 105°C | 0Adc, 25°C | 70Adc, 25°C | 56Adc, 105°C | | |
| PA4684HL | 2 | 360 | 288 | 288 | 200 ±10% | 144 | 144 | 38 | 0.45 |
| PA4718HL | 6 | 360 | 288 | 288 | 600±10% | 432 | 432 | | |

Notes:

1. Open Circuit Inductance (OCL) is the inductance measured on each phase (1-2 or 3-4 etc.) with all other phases open. OCL is measured at 100kHz, 100mVrms. The OCL values at 25C are measured and controlled in production, OCL values at 105C are for reference only and are not measured in on-going production.
2. TShort Circuit Inductance (SCL) is the inductance measured when all phases are connected in series. SCL is measured at 100kHz, 100mVrms. The SCL values at 25C are measured and controlled in production, SCL values at 105C are for reference only and are not measured in on-going production.
3. The heating current, or rms current, per phase is calculated to produce a 45C rise above the ambient temperature.
4. In high volt*time applications, additional heating in the component can occur due to core losses in the inductor which may necessitate derating the current in order to limit the temperature rise of the component. To determine the approximate total losses (or temperature rise) for a given application, the coreloss and temperature rise curves can be used.
5. Parts with HL suffix are sold in trays. For tape and reel add a 'T' suffix (i: PA4684HL becomes PA4684HLT). Pulse tape and reel packaging complies with industry specification EIA-481. For PA4684HL the tape and reel product has a width (W=24mm), pitch (Po=20mm) and depth (Ko=7.9mm). For PA4718HL the tape and reel product has a width (W=56mm), pitch (Po=20mm) and depth (Ko=8.7mm).
6. The components are able to withstand pressures of up to 0.4N/mm².
7. The temperature of the component (ambient plus temperature rise) must be within the stated operating range.

SMT Power Inductors

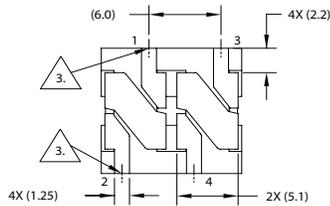
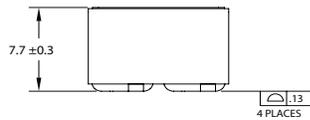
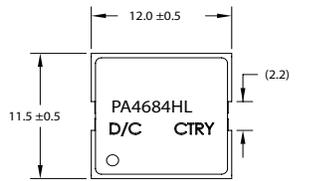
Power Beads - PA4684HL (2-Phase) and PA4718HL (6-Phase) Coupled inductors



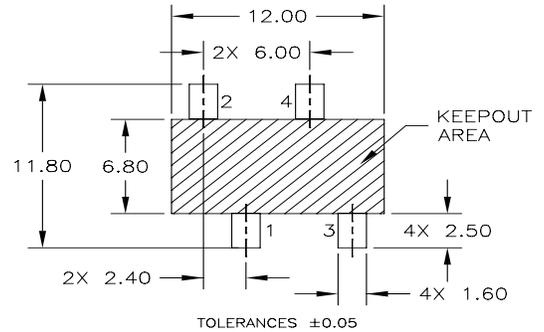
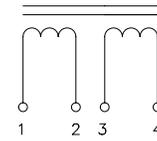
Mechanical

Schematic

PA4684HL



FINAL LAYOUT

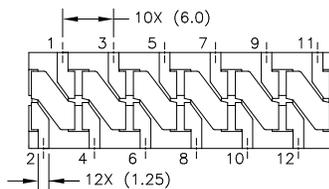
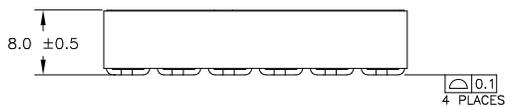
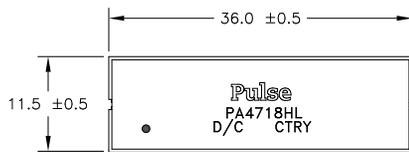


SUGGESTED PAD LAYOUT

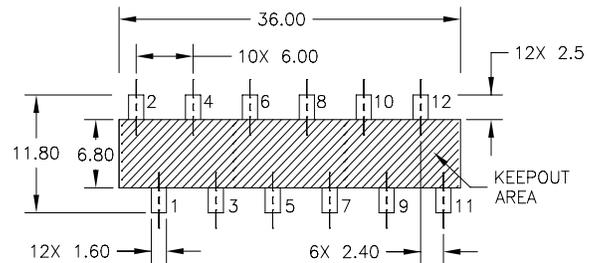
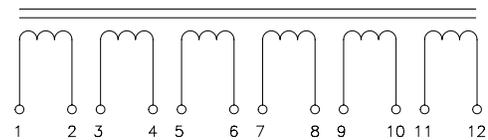
Mechanical

Schematic

PA4718HL



FINAL LAYOUT



TOLERANCES ±0.05
SUGGESTED PAD LAYOUT

Weight: 4.5grms (PA4684HL)
13.5grms (PA4718HL)

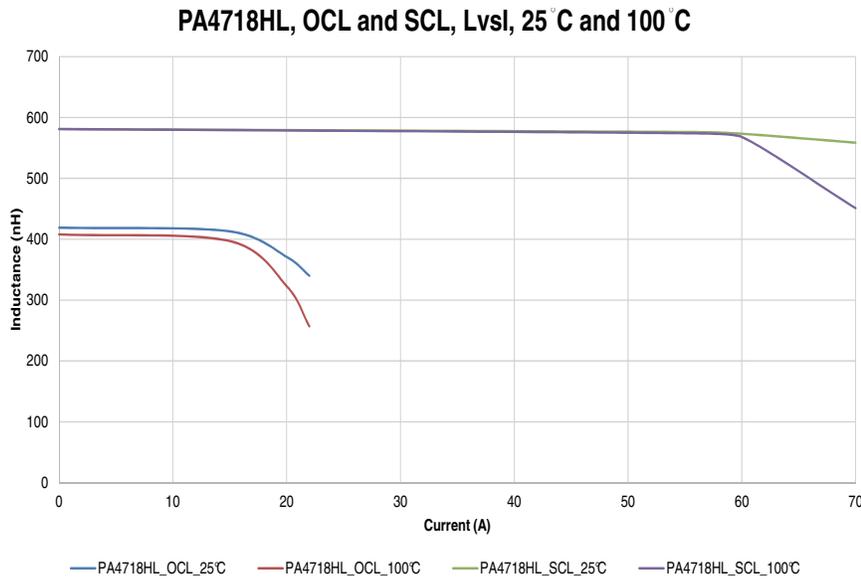
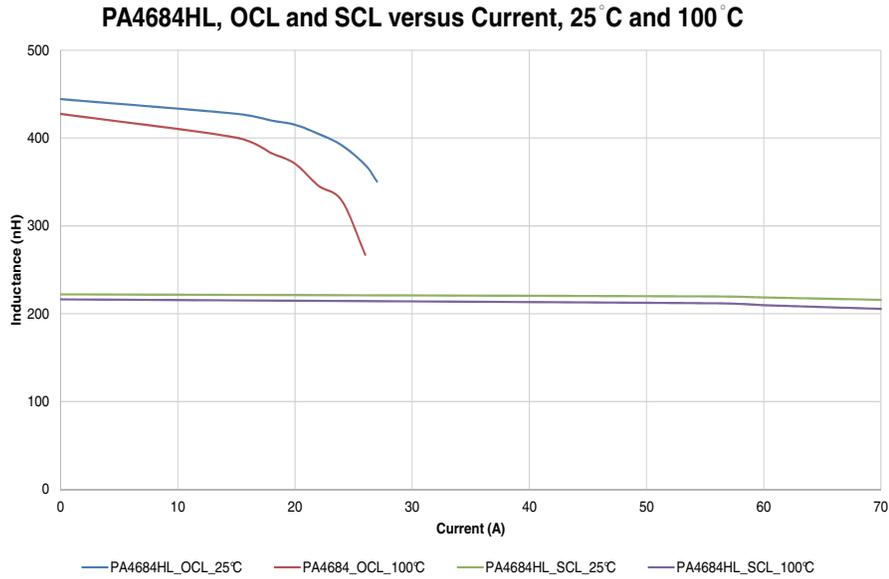
Tape & Reel: 350pcs/reel (PA4684HL)
300pcs/reel (PA4718HL)

Dimensions: mm

Unless otherwise specified, all tolerances are ± 0.25

SMT Power Inductors

Power Beads - PA4684HL (2-Phase) and PA4718HL (6-Phase) Coupled inductors



For More Information:

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