



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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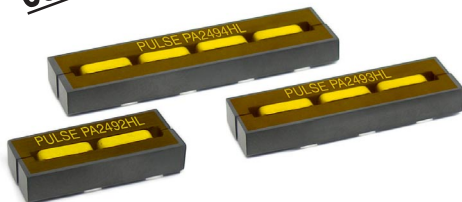
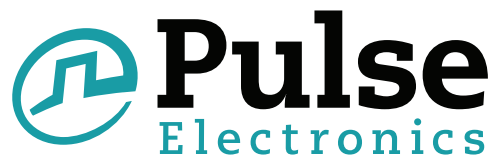
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# SMT POWER INDUCTORS

## Power Beads - PA249xHL Series Coupled Inductors



- Gen2.0 Coupled Inductors (PA249xHL) enables higher efficiency due to lower switching losses and lower conduction losses
- For use only with Volterra® multi-phase chipsets in applications demanding a fast transient response and high density
- Halogen Free and RoHS compliant

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

| Pulse Part No. | Number of Coupled Phases | Equivalent <sup>1</sup> Transient Inductance per Phase (nH) | Isat <sup>2</sup> per Phase (A <sub>pk</sub> ) | Magnetizing Inductance per Phase <sup>3</sup><br>nH Min, 0A <sub>dc</sub> |       |       |       | DCR/Phase <sup>4</sup><br>(mΩ) |
|----------------|--------------------------|---|--|---|-------|-------|-------|--------------------------------|
|                |                          |   |  | L1  | L2    | L3    | L4    | TYP                            |
|                |                          |   |  | (1-2)   | (3-4) | (5-6) | (7-8) |                                |
| PA2492HL       | 2                        | 50  | 80   | 150   | 150   | –     | –     | 0.31                           |
| PA2493HL       | 3                        | 50  | 80   | 250   | 250   | 250   | –     |                                |
| PA2494HL       | 4                        | 50  | 80   | 350   | 350   | 350   | 350   |                                |

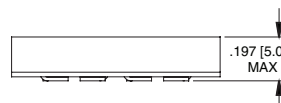
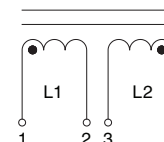
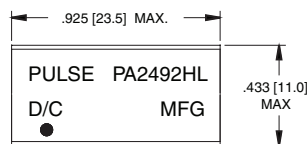
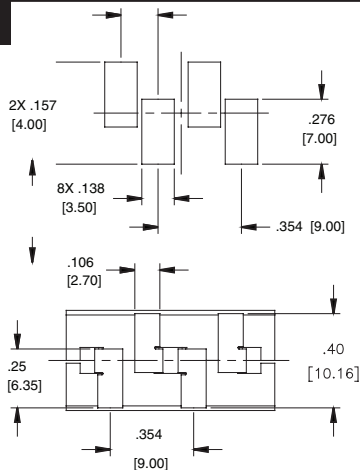
#### NOTES:

- In a non-coupled multi-phase topology, the power supply sees the same inductance during transient and steady-state conditions. As a result, any attempt to lower the inductance to improve transient response has the negative result of increasing ripple and peak currents throughout the system during steady-state operation. However, in a coupled inductor multi-phase topology, the interaction of magnetic fields from each phase enables an overall reduction in ripple current during steady-state operation and a lower equivalent inductance during transient operation. The equivalent transient inductance per phase, as listed, represents the actual value of inductance that would be required in a non-coupled topology to realize the same transient performance. This value is achieved by core and winding geometry and is not directly measured by Pulse. For more information on the operation of the coupled inductor topology, please contact Volterra.
- The rated current per phase is based on Volterra's testing of the Pulse coupled inductors.
- The magnetizing inductance per phase is the measured inductance (at 0A<sub>dc</sub>) across each phase when all other phases are open-circuit. The magnetizing inductance is measured at 100kHz, 100mV<sub>rms</sub>.
- The nominal value of DCR is measured from points Ⓐ to Ⓑ, as shown on the mechanical drawing for PA2492HL.

### Mechanical

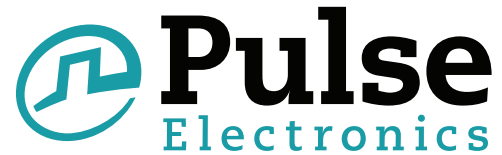
### Schematic

#### PA2492HL



# SMT POWER INDUCTORS

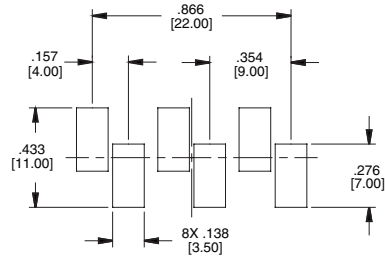
## Power Beads - PA249xHL Series Coupled Inductors



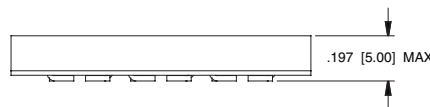
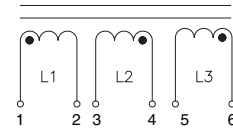
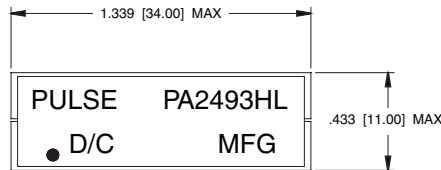
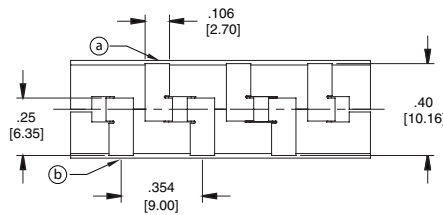
### Mechanical

### Schematic

#### PA2493HL



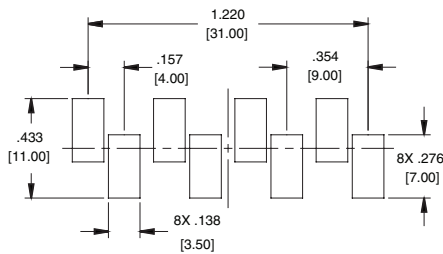
SUGGESTED LAND PATTERN



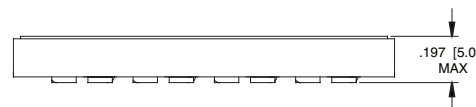
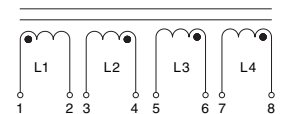
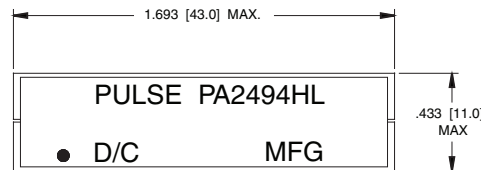
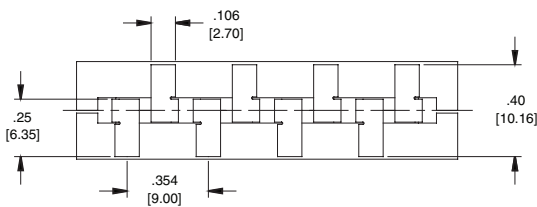
### Mechanical

### Schematic

#### PA2494HL



SUGGESTED LAND PATTERN



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