







# THT Integrated Common Mode and Differential Mode Choke

PA4040.XXXNL



-  Common Mode and Differential Mode Choke intergrated into a single component reducing overall losses and reducing footprint
-  Dielectric Strength: 1500Vrms
-  Common Mode Inductance: 4.5mH (1Arms) to 0.28mH (3.5Arms)
-  Differential Mode Inductance: 685uH (1.33Apk) to 55uH (4.6Apk)
-  Size (LxWxH): 31.0mm x 24.9mm x 16.5 mm Max
-  Safety Spacing: 3.0mm creepage and clearance between windings, 1.5mm between windings and core

## Electrical Specifications @ 25°C - Operating Temperature -40°C to +125°C

Pulse PN	Common Mode Inductance (mH Min) (1-2)=(4-3)	Differential Mode Inductance (uH Min) (1-4 with 2,3 shorted)	I <sub>rms</sub> (A)	I <sub>peak</sub> (A)	DCR/winding (mΩ Max) (1-2)=(4-3)	SRF (MHz, typical)	Impedance at SRF (kΩ typical)
PA4040.001NL	4.5	685	1.0	1.33	245	0.5	140
PA4040.002NL	1.25	320	1.5	2	120	0.7	47
PA4040.003NL	0.41	96	2.5	3.33	46	1.45	8.5
PA4040.004NL	0.28	55	3.5	4.6	32	1.75	5.3

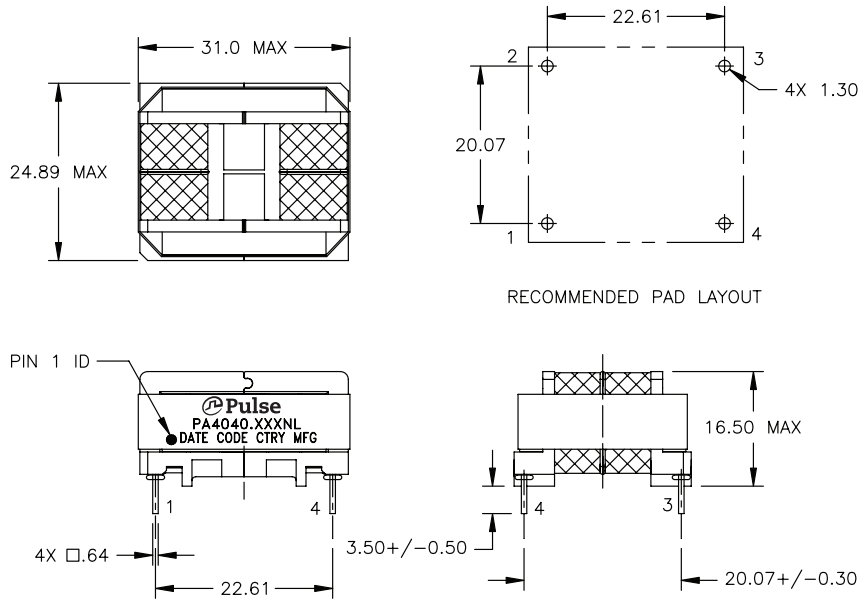
- Notes:**
- The current rating (I<sub>rms</sub>) is based upon the temperature rise of the component and represents the rms current which will cause a typical temperature rise of 40°C.
  - The peak current is the current which will typically cause a 20% drop in the differential mode inductance. The peak current should not be exceeded in the application as it will reduce the CM and DM rejection of the component.
  - The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
  - The PA4040.XXXNL is designed to provide 3.0mm of safety spacing (creepage and clearance distance) between windings and 1.5mm of safety spacing (creepage and clearance distance) between both windings and core.

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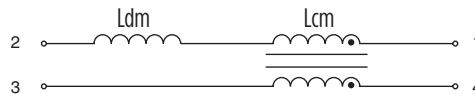
## Mechanical

PA4040.XXXNL



## Schematic

PA4040.XXXNL



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