

# SMT Common Mode Chokes

1.0A to 20.0A



- Wide variety of package sizes available
- 1Arms to 20Arms current rating
- Inductances from 61uH to 10mH
- 1500Vrms Hi-pot

## Electrical Specifications at 25 deg C Temp Range -40 ° C to 120 ° C

| Part Number | Inductance <sup>4</sup><br>per Winding<br>(uH +30%/-35%) | Irated <sup>1</sup><br>(Arms or Adc) | DCR per Winding<br>(mΩ Max) | Leakage Inductance<br>(uH Min) | Package Name | Package Size<br>L x W x H<br>(mm Max) |
|-------------|--|--------------------------------------|-----------------------------|--------------------------------|--------------|---------------------------------------|
| PA2742NL    | 397  | 1                                    | 92                          | 0.6                            | High Shasta  | 9.1 x 8.9 x 7.9                       |
| PA2741NL    | 94   | 1.1                                  | 30                          | 0.3                            | Low Shasta   | 9.1 x 8.9 x 3.8                       |
| PA2752NL    | 10150  | 1.4                                  | 210                         | 25                             | LCCI-50      | 19.6 x 17.0 x 9.9                     |
| PA2748NL    | 1125   | 1.8                                  | 55                          | 3                              | Polecat      | 12.7 x 13.2 x 5.6                     |
| PA3927NL    | 800  | 3                                    | 27                          | 1.5                            | Polecat      | 13x13x8.6                             |
| PA2743NL    | 383*   | 3.3                                  | 18                          | 1                              | Polecat      | 13.0 x 13.0 x 5.6                     |
| PA2749NL    | 536  | 3.8                                  | 17.1                        | 1.2                            | LCCI-37      | 16.4 x 14.2 x 8.9                     |
| PA2744NL    | 280  | 4                                    | 13.2                        | 0.7                            | Polecat      | 13.0 x 13.0 x 5.6                     |
| PA2751NL    | 486  | 4.2                                  | 16                          | 1                              | LCCI-44LP    | 18.2 x 15.0 x 7.6                     |
| PA2745NL    | 130*   | 5                                    | 6.75                        | 0.4                            | Polecat      | 13.2 x 13.2 x 5.6                     |
| PA2746NL    | 96*  | 6                                    | 4.3                         | 0.25                           | Polecat      | 13.2 x 13.2 x 5.6                     |
| PA2750NL    | 400  | 6                                    | 9.4                         | 1.25                           | LCCI-44      | 18.2 x 15.0 x 10.0                    |
| PA2747NL    | 61*  | 7                                    | 2.9                         | 0.15                           | Polecat      | 13.5 x 13.5 x 5.6                     |
| PA2756NL    | 484  | 8                                    | 7.7                         | 1.5                            | LCCI-50      | 19.6 x 17.0 x 9.9                     |
| PA2757NL    | 1030   | 9                                    | 9.75                        | 3                              | HCCI-80      | 31.0 x 25.4 x 12.7                    |
| PA2754NL    | 215  | 10                                   | 3.75                        | 0.5                            | Makeni       | 21.1 x 19.1 x 11.2                    |
| PA2753NL    | 95   | 12.5                                 | 3                           | 0.15                           | LCCI-50      | 19.6 x 17.0 x 9.9                     |
| PA2755NL    | 117  | 14                                   | 1.95                        | 0.3                            | Makeni       | 21.1 x 19.1 x 11.2                    |
| PA2670NL    | 500  | 16                                   | 4.25                        | 1.5                            | HCCI-80      | 31.0x25.4x12.7                        |
| PG1265NL    | 380  | 20                                   | 4.1                         | 1.2                            | HCCI-80      | 31.0x25.4x12.7                        |

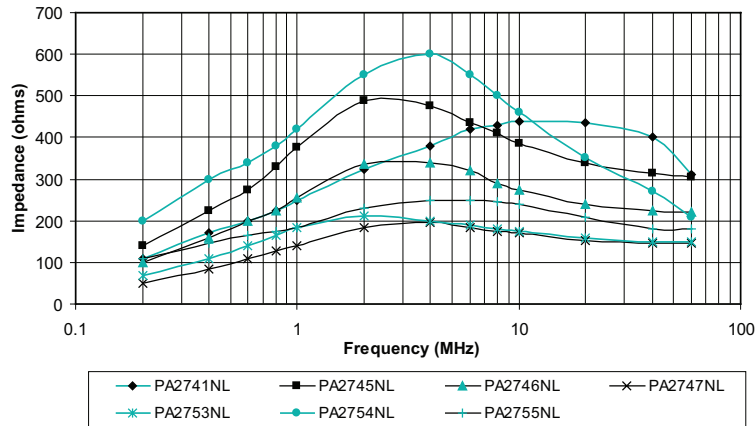
**NOTE:**

1. The current rating (Irated) is based upon the temperature rise of the component and represents the rms current which will cause a typical temperature rise of 40C.
2. The temperature of the component (ambient plus temperature rise) must be within the stated operating temperature range.
3. Optional Tape & Reel packaging can be ordered by adding a "T" suffix to the part number (i.e. PA2741NL becomes PA2741NLT). Pulse complies to industry standard tape and reel specification EIA481.
4. Components identified by an asterisk have an inductance tolerance of +/- 35%. All other components are +30/-35%.
5. The current rating (Irated) is based upon the temperature rise of the component and represents the rms current which will cause a typical temperature rise of 55C with 50LFM forced cooling
6. Parts marked with the AEC-Q200 symbol are AEC-Q200 qualified. Parts not identified as AEC-Q200 are still under test.

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## Impedance Plots



## Impedance Plots



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## Mechanics

### Low Shasta - PA2741NL



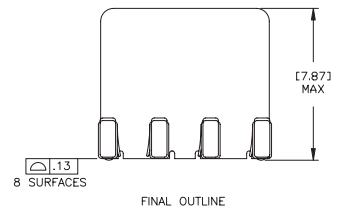
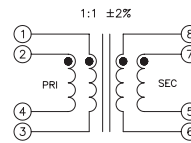
### Schematic



### High Shasta - PA2742NL

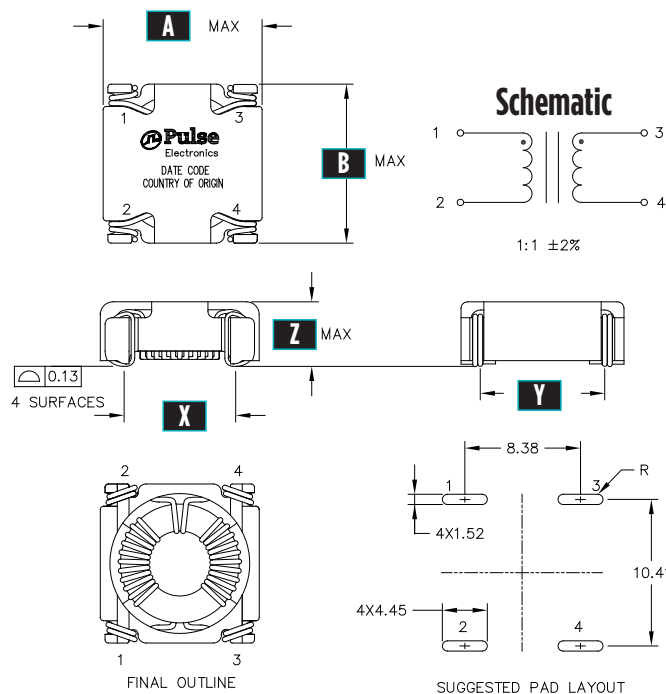


### Schematic



Please note that for PA2741NL and PA2742NL the part should be connected as follows:  
 Customer to connect pins (1,2) and (4,3) together on board to form a single winding (1,2-4,3).  
 Customer to connect pins (8,7) and (5,6) together on board to form a single winding (8,7-5,6)  
 All ratings (leakage and DCR) are with respect to the above winding configuration.

### PoleCat - PA2743NL, PA2744NL, PA2745NL, PA2746NL, PA2747NL, PA2748NL and PA3927NL



### Polecat Dimensions

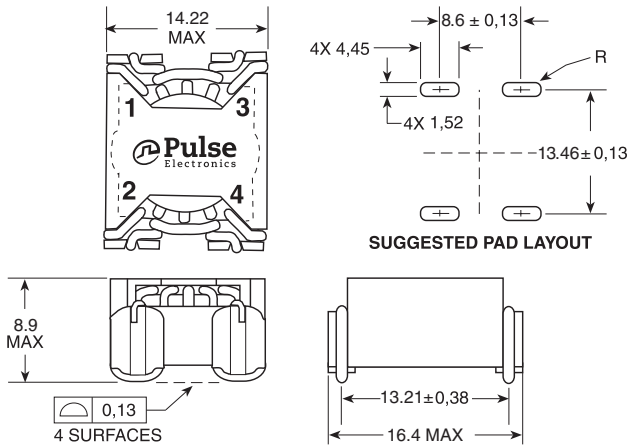
| Part Number | A    | B    | X   | Y    | Z   |
|-------------|------|------|-----|------|-----|
| PA2743NL    | 13.0 | 13.0 | 8.4 | 10.4 | 5.6 |
| PA2744NL    | 13.0 | 13.0 | 8.4 | 10.4 | 5.6 |
| PA2745NL    | 13.2 | 13.2 | 8.6 | 10.7 | 5.6 |
| PA2746NL    | 13.2 | 13.2 | 8.6 | 10.7 | 5.6 |
| PA2747NL    | 13.5 | 13.5 | 8.6 | 10.7 | 5.6 |
| PA2748NL    | 12.7 | 13.2 | 8.4 | 10.4 | 5.6 |
| PA3927NL    | 13.0 | 13.0 | 8.4 | 10.4 | 8.6 |

# SMT Common Mode Chokes

1.0A to 20.0A

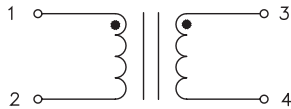
## Mechanicals

### LCCI-37 - PA2749NL



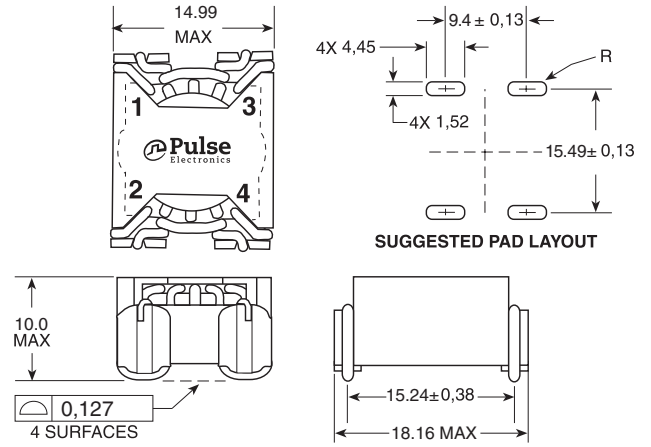
SUGGESTED PAD LAYOUT

#### Schematic



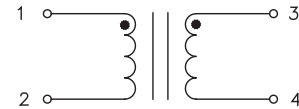
1:1 ±2%

### LCCI-44 - PA2750NL



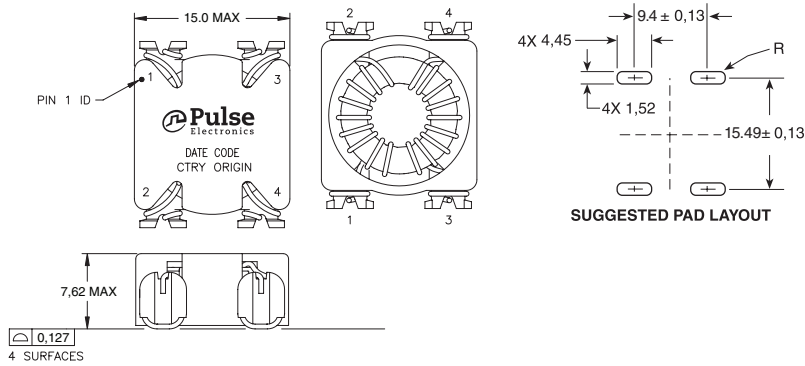
SUGGESTED PAD LAYOUT

#### Schematic



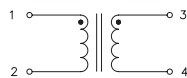
1:1 ±2%

### LCCI-44LP - PA2751NL



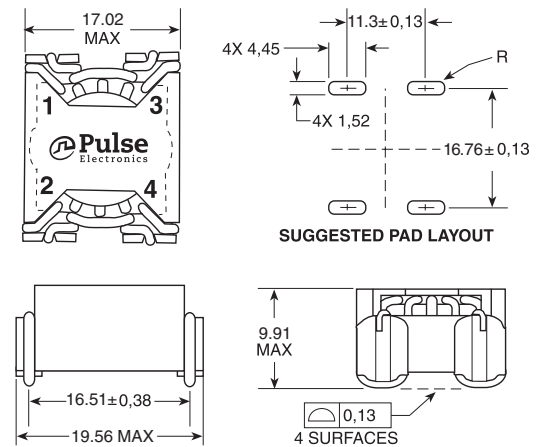
SUGGESTED PAD LAYOUT

#### Schematic



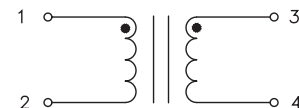
1:1 ±2%

### LCCI-50 - PA2752NL



SUGGESTED PAD LAYOUT

#### Schematic



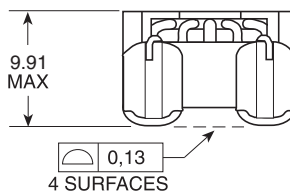
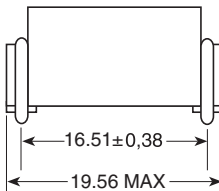
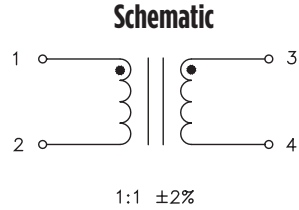
1:1 ±2%

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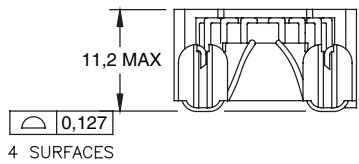
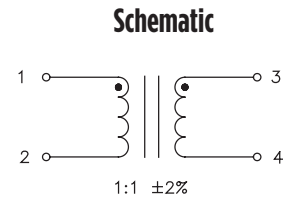
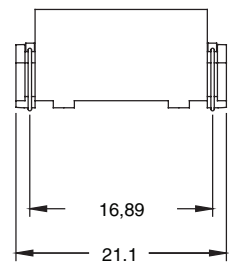
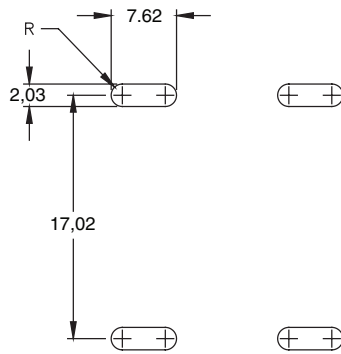
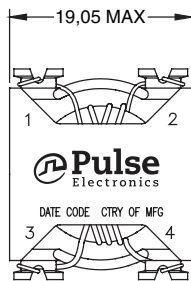
1.0A to 20.0A

## Mechanicals

### LCCI-50 - PA2753NL and PA2756NL



### Makeni - PA2754NL, PA2755NL



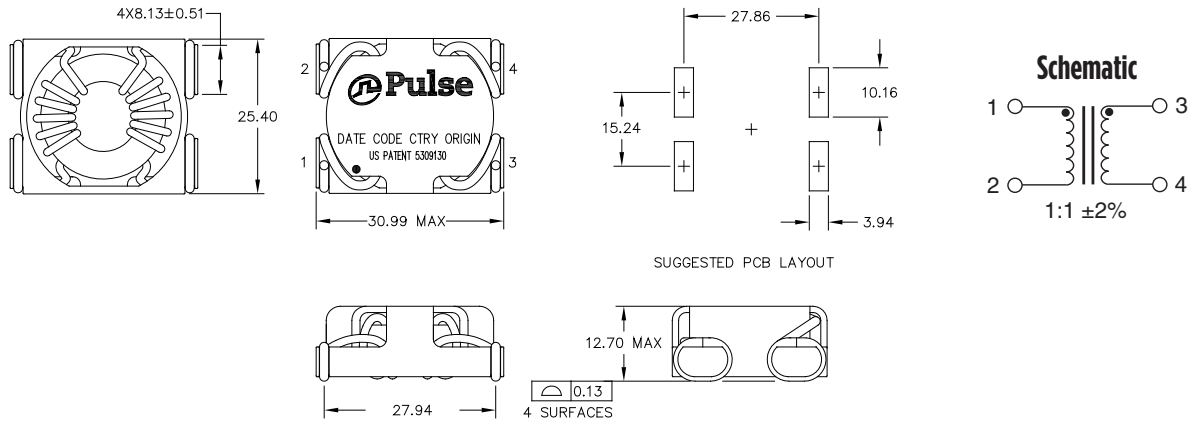
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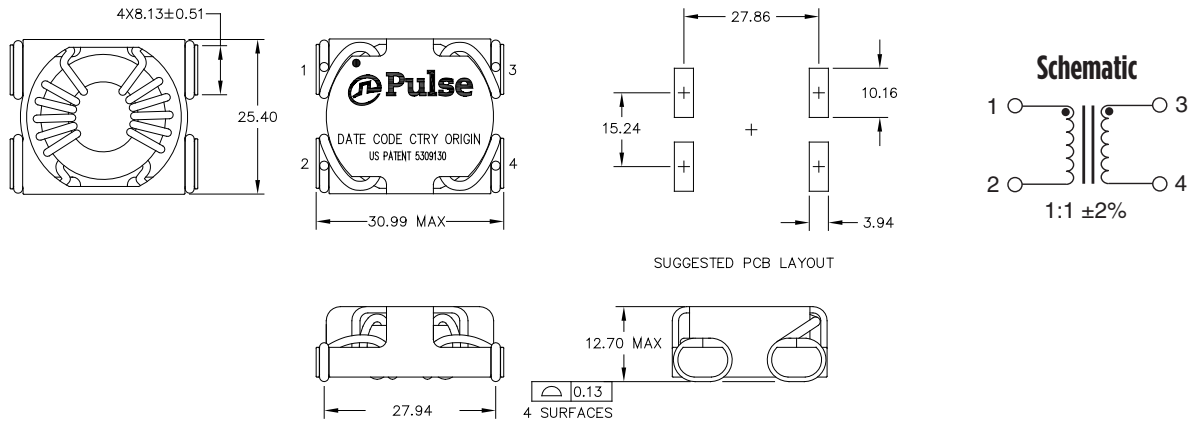


## Mechanical

### HCCI-80 - PA2757NL



### HCCI-80 - PA2670NL and PG1265NL



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