

# MULTILAYER CHIP RF INDUCTORS

## PE-XXXXCLHxxxSTS SERIES



-  Monolithic inorganic material construction
-  Low DC resistance supports higher DC bias currents
-  Magnetically Shielded for low Cross coupling
-  Industry Standard 0603, 0805 and 1008 size offered

### 0603 SIZE

Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C

| Part Number      | Inductance<br>(uH) | Test<br>Frequency<br>(MHz) | DC Resistance |           | SRF<br>(MHz MIN) | Saturation<br>Current Typ.<br>Isat (mA) | Heat Rated<br>Current Max.<br>Irms (mA) |
|------------------|--------------------|----------------------------|---------------|-----------|------------------|-----------------------------------------|-----------------------------------------|
|                  |                    |                            | (mΩ MAX)      | (Typical) |                  |                                         |                                         |
| PE-0603CLHR47STS | 0.47               | 1                          | 130           | 100       | 100              | 800                                     | 1050                                    |
| PE-0603CLHR56STS | 0.56               | 1                          | 156           | 120       | 100              | 800                                     | 1050                                    |
| PE-0603CLHR68STS | 0.68               | 1                          | 180           | 150       | 100              | 750                                     | 1050                                    |
| PE-0603CLH1R0STS | 1.0                | 1                          | 260           | 200       | 98               | 600                                     | 900                                     |
| PE-0603CLH1R5STS | 1.5                | 1                          | 312           | 240       | 95               | 400                                     | 750                                     |
| PE-0603CLH1R8STS | 1.8                | 1                          | 312           | 240       | 95               | 400                                     | 750                                     |
| PE-0603CLH2R2STS | 2.2                | 1                          | 312           | 240       | 95               | 400                                     | 750                                     |
| PE-0603CLH4R7STS | 4.7                | 1                          | 650           | 500       | 65               | 350                                     | 700                                     |

### 0805 SIZE

Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C

| Part Number      | Inductance<br>(uH) | Test<br>Frequency<br>(MHz) | DC Resistance |           | SRF<br>(MHz MIN) | Saturation<br>Current Typ.<br>Isat (mA) | Heat Rated<br>Current Max.<br>Irms (mA) |
|------------------|--------------------|----------------------------|---------------|-----------|------------------|-----------------------------------------|-----------------------------------------|
|                  |                    |                            | (mΩ MAX)      | (Typical) |                  |                                         |                                         |
| PE-0805CLH1R0STS | 1.0                | 1                          | 137           | 110       | 75               | 800                                     | 1150                                    |
| PE-0805CLH1R5STS | 1.5                | 1                          | 150           | 120       | 65               | 750                                     | 1100                                    |
| PE-0805CLH2R2STS | 2.2                | 1                          | 250           | 200       | 50               | 600                                     | 950                                     |
| PE-0805CLH3R3STS | 3.3                | 1                          | 275           | 220       | 35               | 400                                     | 800                                     |
| PE-0805CLH4R7STS | 4.7                | 1                          | 375           | 300       | 25               | 300                                     | 750                                     |
| PE-0805CLH6R8STS | 6.8                | 1                          | 375           | 300       | 25               | 200                                     | 600                                     |

### 1008 SIZE

Electrical Specifications @ 25°C - Operating Temperature -40°C to +85°C

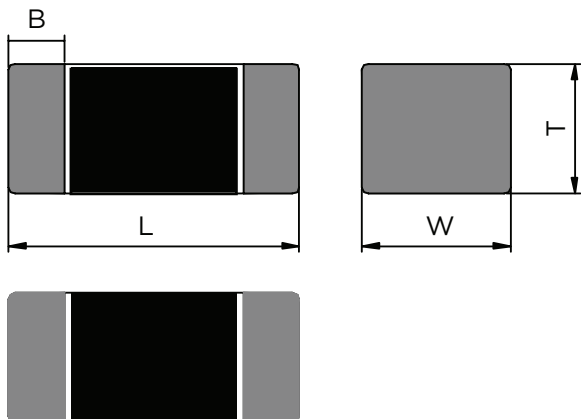
| Part Number      | Inductance<br>(uH) | Test<br>Frequency<br>(MHz) | DC Resistance |           | SRF<br>(MHz MIN) | Saturation<br>Current Typ.<br>Isat (mA) | Heat Rated<br>Current Max.<br>Irms (mA) |
|------------------|--------------------|----------------------------|---------------|-----------|------------------|-----------------------------------------|-----------------------------------------|
|                  |                    |                            | (mΩ MAX)      | (Typical) |                  |                                         |                                         |
| PE-1008CLH1R0STS | 1.0                | 1                          | 75            | 60        | 70               | 1400                                    | 1600                                    |
| PE-1008CLH1R5STS | 1.5                | 1                          | 88            | 70        | 60               | 1100                                    | 1400                                    |
| PE-1008CLH2R2STS | 2.2                | 1                          | 125           | 100       | 55               | 850                                     | 1300                                    |
| PE-1008CLH3R3STS | 3.3                | 1                          | 175           | 140       | 30               | 650                                     | 1200                                    |
| PE-1008CLH4R7STS | 4.7                | 1                          | 225           | 180       | 25               | 580                                     | 1100                                    |

# MULTILAYER CHIP RF INDUCTORS

## PE-XXXXCLHxxxSTS SERIES

### CLH Series

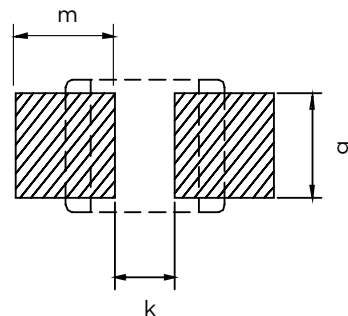
### DIMENSIONS



#### Dimensions:

Unless otherwise specified,  
all tolerances are  $\pm 0,25$

### PCB Layout



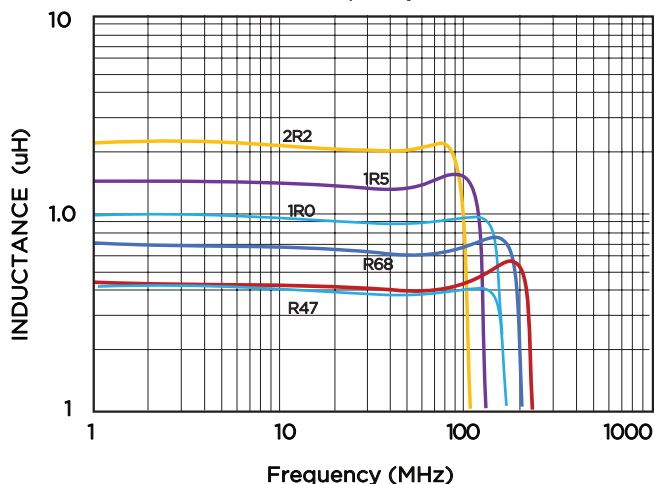
### Mechanical Specification - Dimension in mm

| Part Number      | L              | W              | T              | B              | g    | k    | m    | PACKING QUANTITY PER REEL |
|------------------|----------------|----------------|----------------|----------------|------|------|------|---------------------------|
| PE-0603CLHXXXSTS | 1.60 $\pm$ 0.2 | 0.80 $\pm$ 0.2 | 0.80 $\pm$ 0.2 | 0.30 $\pm$ 0.2 | 1.27 | 0.70 | 0.64 | 4000                      |
| PE-0805CLHXXXSTS | 2.00 $\pm$ 0.2 | 1.20 $\pm$ 0.2 | 0.90 $\pm$ 0.2 | 0.50 $\pm$ 0.2 | 1.78 | 0.76 | 1.02 | 4000                      |
| PE-1008CLHXXXSTS | 2.50 $\pm$ 0.2 | 2.00 $\pm$ 0.2 | 1.00 $\pm$ 0.2 | 0.50 $\pm$ 0.2 | 2.54 | 0.80 | 1.02 | 3000                      |

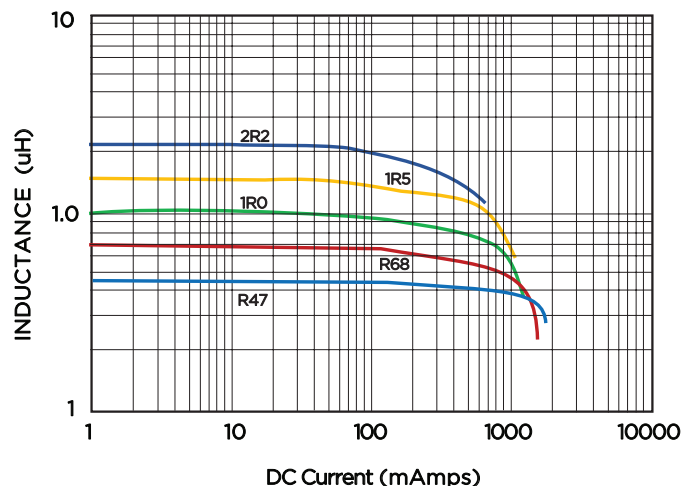
### Characteristic Graphs

#### 0603CLH Series

Inductance v.s. Frequency Characteristics



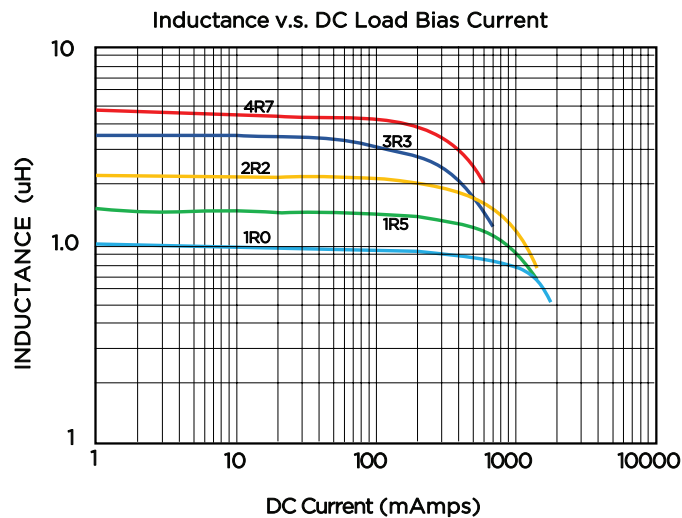
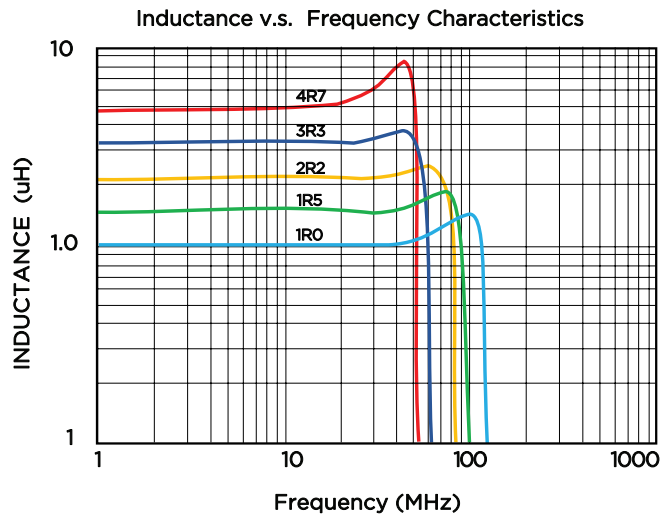
Inductance v.s. DC Load Bias Current



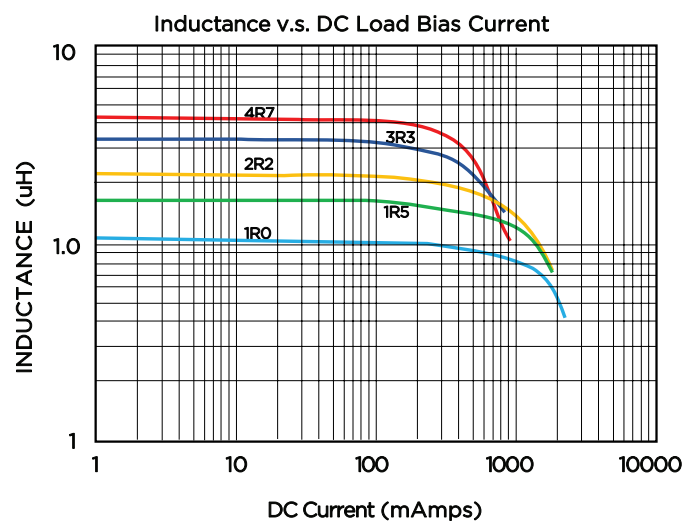
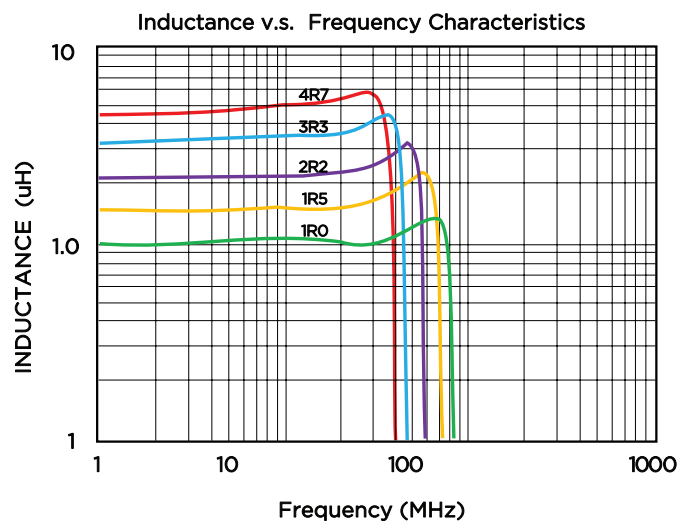
# MULTILAYER CHIP RF INDUCTORS

## PE-XXXXCLHxxxSTS SERIES

### 0805CLH Series



### 1008CLH Series



### For More Information:

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[PE-0805CLH1R0STS](#) [PE-0805CLH6R8STS](#) [PE-0805CLH1R5STS](#) [PE-0805CLH3R3STS](#) [PE-0805CLH4R7STS](#) [PE-](#)  
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