

# Leadless Power Inductors PLC-1055 Series

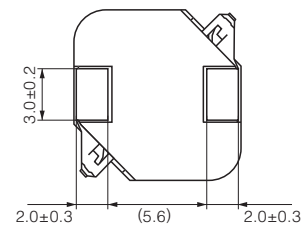
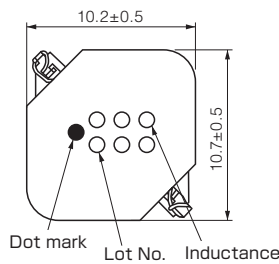
[RoHS Compliant]



| Model         | Inductance<br>at 100kHz, 1mA<br>( $\mu$ H) | DC resistance<br>RDC (m $\Omega$ ) max. | I <sub>rms</sub> *1 | Rated current (A)<br>I <sub>sat</sub> (Ref.) *2 |          |
|---------------|--|---|---------------------|---|----------|
|               |  |   |                     | at 20°C   | at 100°C |
| PLC-1055-2R0S | 2.0 $\pm$ 30%                              | 13                                      | 8.2                 | 13.6  | 11.0     |
| PLC-1055-3R3S | 3.3 $\pm$ 30%                              | 18                                      | 7.2                 | 9.6   | 7.0      |
| PLC-1055-4R7S | 4.7 $\pm$ 30%                              | 21                                      | 5.8                 | 8.7   | 6.6      |
| PLC-1055-5R6S | 5.6 $\pm$ 30%                              | 24                                      | 5.7                 | 8.3   | 6.5      |
| PLC-1055-6R8S | 6.8 $\pm$ 30%                              | 26                                      | 5.1                 | 8.2   | 6.1      |
| PLC-1055-8R2S | 8.2 $\pm$ 30%                              | 33                                      | 4.7                 | 7.4   | 5.5      |
| PLC-1055-100S | 10.0 $\pm$ 20%                             | 43                                      | 4.0                 | 6.7   | 4.9      |
| PLC-1055-120S | 12.0 $\pm$ 20%                             | 46                                      | 3.8                 | 5.8   | 4.2      |
| PLC-1055-150S | 15.0 $\pm$ 20%                             | 50                                      | 3.5                 | 4.9   | 3.5      |
| PLC-1055-180S | 18.0 $\pm$ 20%                             | 54                                      | 3.4                 | 4.5   | 3.4      |
| PLC-1055-220S | 22.0 $\pm$ 20%                             | 62                                      | 3.3                 | 4.2   | 3.1      |
| PLC-1055-330S | 33.0 $\pm$ 20%                             | 110                                     | 2.7                 | 3.1   | 2.3      |

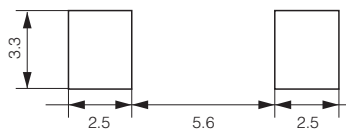
\*1 T=40K rise at rated current. \*2 Inductance drop 30% at rated current.  
● Operating temperature range: -20 to +120°C (Including self-temperature rise)

## Shape and Dimensions



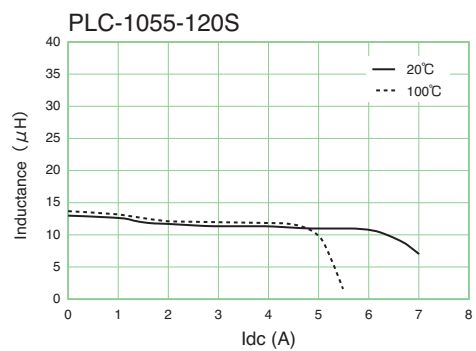
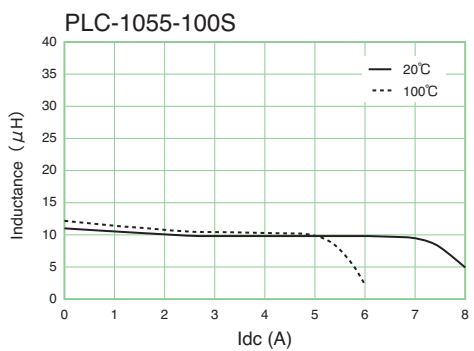
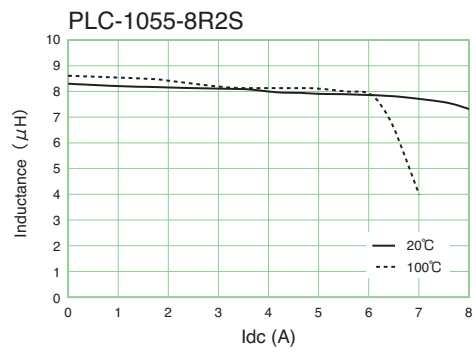
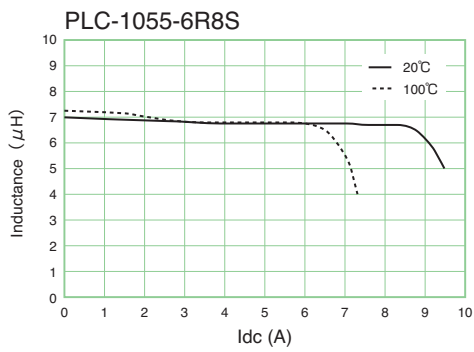
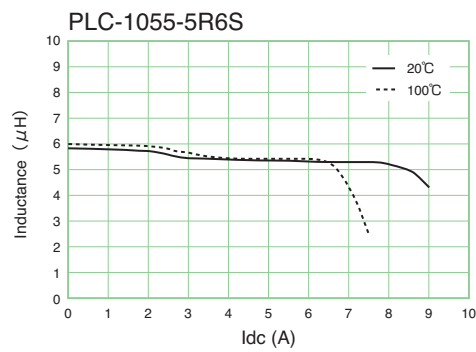
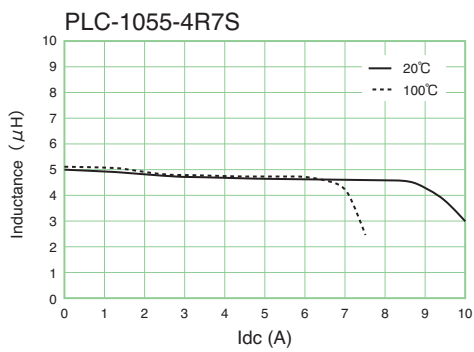
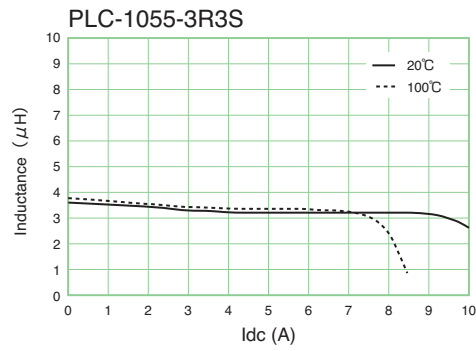
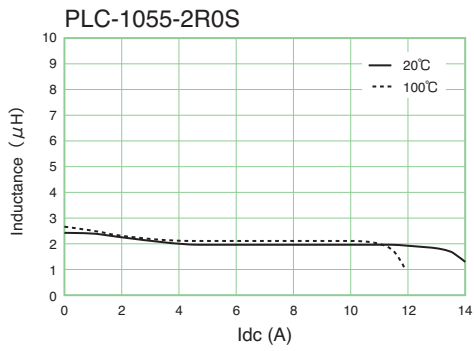
[mm]

## Recommended Land Pattern

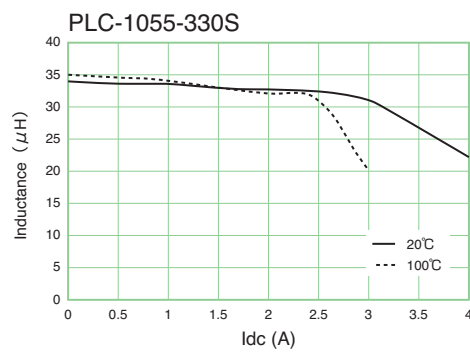
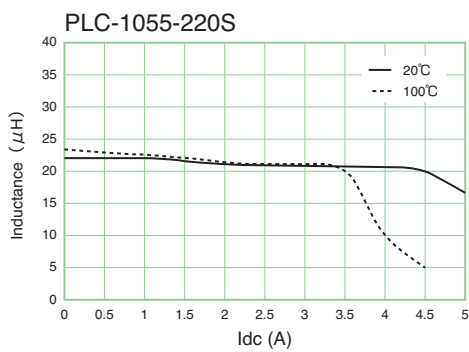
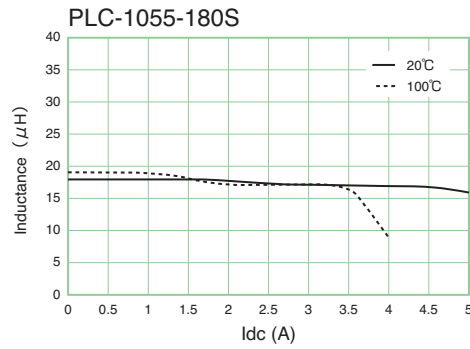
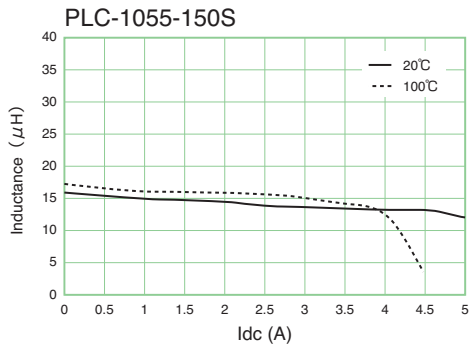


[mm]

DC-Superposed Characteristics

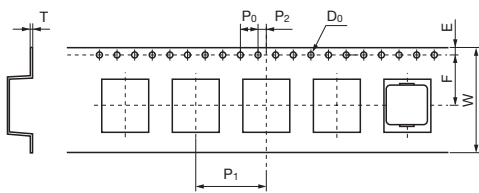


DC-Superposed Characteristics



PLC-1055 Series

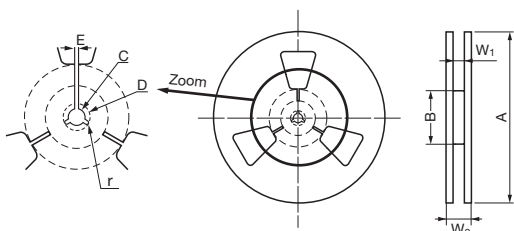
Dimensions of indented square hole plastic tape



|             | W    | F    | E    | P <sub>1</sub> | P <sub>2</sub> | P <sub>0</sub> | D <sub>0</sub> | T     |
|-------------|------|------|------|----------------|----------------|----------------|----------------|-------|
|             | ±0.3 | ±0.1 | ±0.1 | ±0.1           | ±0.1           | ±0.1           | ±0.05          | ±0.05 |
| 1055 Series | 24.0 | 11.5 | 1.75 | 16.0           | 2.0            | 4.0            | 1.55           | 0.4   |

|             | pcs./reel |
|-------------|-----------|
| 1055 Series | 800       |

Reel dimensions



| A   | B  | C    | D    | E    | r    | W <sub>1</sub> | W <sub>2</sub> |
|-----|----|------|------|------|------|----------------|----------------|
| ±5  | ±5 | ±0.5 | ±0.8 | ±0.5 |      | ±0.5           | ±0.5           |
| 380 | 80 | 13.5 | 21.0 | 2.0  | R1.0 | 25.5           | 29.5           |