

Type: CLS3D18

Preliminary

### ◆ Product Description

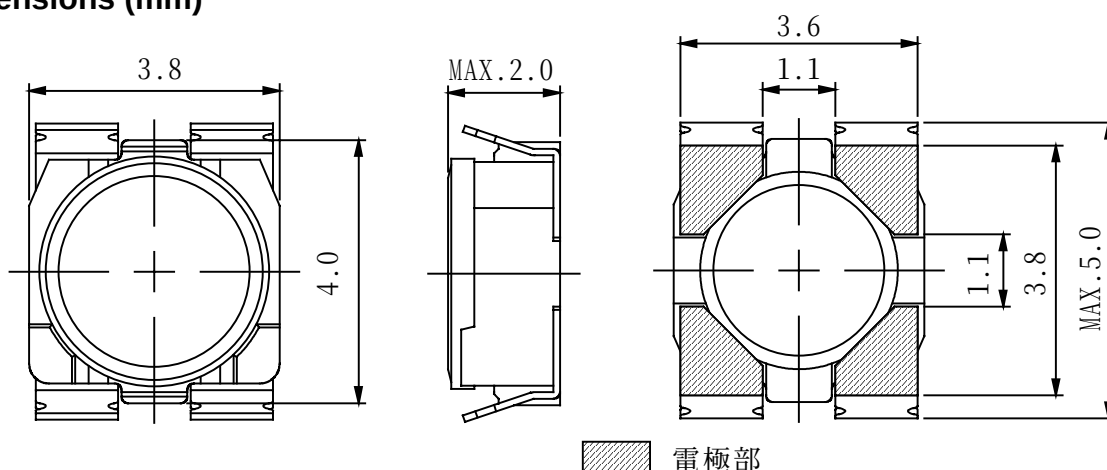
- 5.0×3.8mm Max.(L×W), 2.0mm Max. Height.
- 4 Terminal pins' type gives a flexible design as inductors or transformers (SEPIC,ZETA circuit).
- Custom design is available.



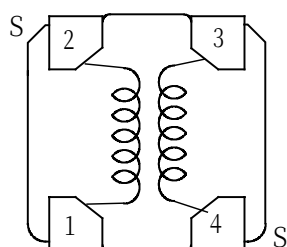
### ◆ Feature

- Max. Operating frequency 1MHz, Max.
- 2 in 1 Coils for high efficient up-down DC-DC converters (SEPIC, Zeta circuits to be used).
- Can be also used as DC-DC converter inductors.
- Ideally used in the power supply for DSC, Note PC, DVC and W-LED backlighting.
- RoHS Compliance

### ◆ Dimensions (mm)

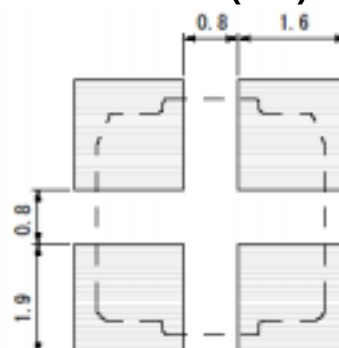


### ◆ Schematics (Bottom)



"S" indicates winding start.

### ◆ Land Pattern (mm)



## Type: CLS3D18

## ◆ Specification

| Part No.         | Stamp | Inductance<br>[Within] | Saturation Current (A)<br>(at 20°C)※1 |         |                   |         | Temperature<br>Rise current<br>(A) ※2 |                      |
|------------------|-------|------------------------|---------------------------------------|---------|-------------------|---------|---------------------------------------|----------------------|
|                  |       |                        | (1,4-2,3)                             |         | (2-3) (1,4 Short) |         | (1,4-2,3)                             | (2-3)<br>(1,4 Short) |
|                  |       |                        | at20°C                                | at100°C | at20°C            | at100°C |                                       |                      |
| CLS3D18NP-1R0N□  | A     | 1.0 μH±30%             | 1.65                                  | 1.53    | 0.82              | 0.72    | 2.1                                   | 1.02                 |
| CLS3D18NP -1R8N□ | B     | 1.8μH±30%              | 1.24                                  | 1.08    | 0.62              | 0.51    | 1.8                                   | 0.83                 |
| CLS3D18NP -2R2N□ | C     | 2.2μH±30%              | 1.04                                  | 0.95    | 0.53              | 0.46    | 1.6                                   | 0.80                 |
| CLS3D18NP -3R3N□ | D     | 3.3μH±30%              | 1.01                                  | 0.86    | 0.49              | 0.41    | 1.35                                  | 0.60                 |
| CLS3D18NP -5R0N□ | E     | 5.0μH±30%              | 0.73                                  | 0.63    | 0.35              | 0.32    | 1.17                                  | 0.50                 |
| CLS3D18NP -6R8N□ | F     | 6.8μH±30%              | 0.61                                  | 0.59    | 0.32              | 0.27    | 0.98                                  | 0.47                 |
| CLS3D18NP -100N□ | G     | 10μH±30%               | 0.51                                  | 0.45    | 0.24              | 0.23    | 0.75                                  | 0.34                 |

## ※ Description Of Part Name

CLS3D18NP -1R0N□

- B Box
- C Carrier Tape

※1. Saturation Current: The DC current at which the inductance decreases to 90% of it's nominal value.

※2. Temperature rise current: The DC current at which the temperature rise is Δt=40°C.(Ta=20°C).