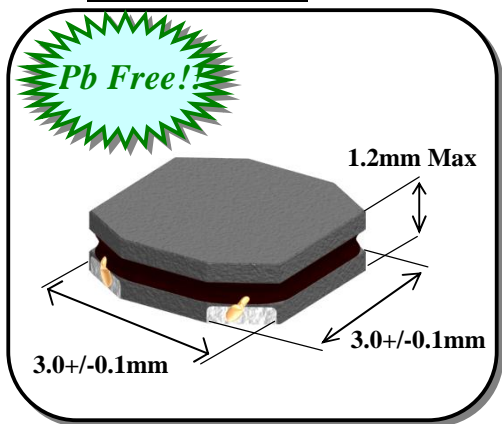


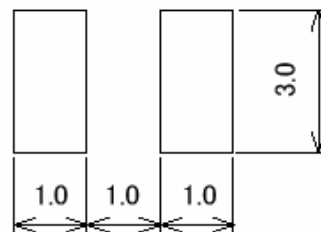
**Component Image  
& Dimensions**



**Features :**

- a) Miniature Size :  
 Mount Area : 3.0mm x 3.0mm  
 Low Profile : 1.2mm Max. Height
- b) Generic use for portable DC/DC Converter.
- c) High Magnetic Shield Construction should actualize  
 High Resolution for EMC Protection.
- d) Automatic Mounting in Tape&Reel Package.

**Recommended Land Pattern**



unit: mm

**Electrical Specification**

| TDK Identification | Inductance [ $\mu$ H]<br>Tol.<br>(%) | Test<br>Freq.<br>[MHz] | DC Resistance<br>[Ohm] |        | Rated DC Current [A] |        |                |
|--------------------|--------------------------------------|------------------------|------------------------|--------|----------------------|--------|----------------|
|                    |                                      |                        | (Max.)                 | (Typ.) | Idc1<br>(Max.)       | (Typ.) | Idc2<br>(Typ.) |
| VLS3012T- 1R0N2R2  | 1.0+/- 30%                           | 1.0                    | 0.070                  | 0.058  | 2.2                  | 2.5    | 2.2            |
| VLS3012T- 1R5N1R7  | 1.5+/- 30%                           | 1.0                    | 0.082                  | 0.068  | 1.7                  | 1.9    | 2.0            |
| VLS3012T- 2R2M1R5  | 2.2+/- 20%                           | 1.0                    | 0.098                  | 0.082  | 1.5                  | 1.7    | 1.9            |
| VLS3012T- 3R3M1R3  | 3.3+/- 20%                           | 1.0                    | 0.120                  | 0.100  | 1.3                  | 1.5    | 1.7            |
| VLS3012T- 4R7M1R0  | 4.7+/- 20%                           | 1.0                    | 0.156                  | 0.130  | 1.0                  | 1.2    | 1.4            |
| VLS3012T- 6R8MR90  | 6.8+/- 20%                           | 1.0                    | 0.228                  | 0.190  | 0.9                  | 1.0    | 1.2            |
| VLS3012T- 100MR72  | 10+/- 20%                            | 1.0                    | 0.336                  | 0.280  | 0.72                 | 0.8    | 1.0            |
| VLS3012T- 150MR58  | 15+/- 20%                            | 1.0                    | 0.528                  | 0.440  | 0.58                 | 0.65   | 0.81           |
| VLS3012T- 220MR49  | 22+/- 20%                            | 1.0                    | 0.756                  | 0.630  | 0.49                 | 0.55   | 0.67           |
| VLS3012T- 330MR40  | 33+/- 20%                            | 1.0                    | 1.248                  | 1.040  | 0.40                 | 0.45   | 0.52           |
| VLS3012T- 470MR34  | 47+/- 20%                            | 1.0                    | 1.512                  | 1.260  | 0.34                 | 0.38   | 0.48           |

Note) Idc 1 : Depend on the Inductance Saturation. (-30% Reduction from Nominal L Value)

Idc 2 : Depend on the Self Temperature Rise (40deg.C Typ.)

Operating Temperature Range : -40deg.C ~ +105deg.C (including Self Temp. Rise)

# INDUCTANCE VS. DC SUPERPOSITION CHARACTERISTICS

## Inductance vs D.C. Current Comparison

