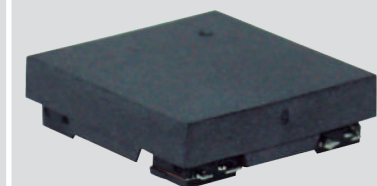


## 3DC11LPCAP

### SMD CAP 3D Coil Low Profile

13x12.8x3.7mm (2.38mH - 7.2mH)

3-AXIS TRANSPONDER INDUCTOR (3DCOILS™)



#### APPLICATIONS

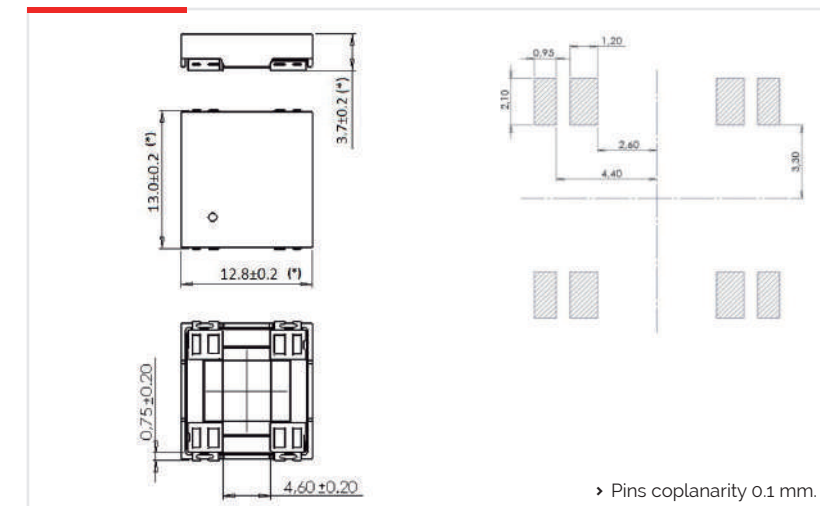
- › Automotive Passive keyless entry systems.
- › Automotive RTPMS with wake up functions.
- › Industrial logistics and control.
- › Access control.
- › Tracking devices.

## 01 CHARACTERISTICS

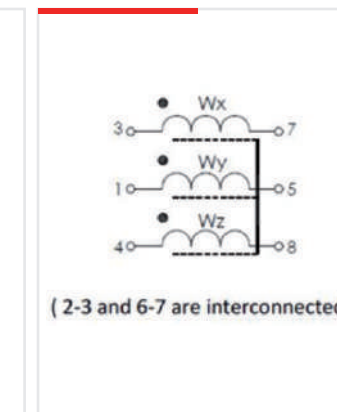
- › Evolution of the 3DC11LP series.
- › The cap, made of high quality plastic material, improves the mechanical protection to the coil.
- › Keyless Entry Systems is a typical application for this coil.
- › Very good electrical performance.
- › High stability in temperature (-40°C to +85°C).
- › High sensitivity values.
- › The inductance in each axis can be customized to ssachieve customer requirements.
- › Designs at lower frequencies, 20 kHz or 40 kHz, show a very good electrical performance as well.

## 02 SPECIFICATIONS

### DIMENSIONS AND RECOMMENDED PAD-LAYOUT (mm)



### ELECTRICAL DIAGRAM



### ELECTRICAL SPECIFICATIONS

| P/N            | L<br>x,y,z<br>(mH) | Q<br>x,y,z<br>Min | Frequency<br>(kHz) | Cres(pF) | SRFx,y<br>(kHz)<br>Min | SRFz<br>(kHz)<br>Min | DCR<br>x,y (Ω)<br>Max | DCR<br>z (Ω)<br>Max |
|----------------|--------------------|-------------------|--------------------|----------|------------------------|----------------------|-----------------------|---------------------|
| 3DC11CAP-0238J | 2.38               | 17                | 125                | 680      | 450                    | 850                  | 60,5                  | 82,5                |
| 3DC11CAP-0491J | 4.91               | 15                | 125                | 330      | 300                    | 700                  | 111                   | 150                 |
| 3DC11CAP-0720J | 7.20               | 15                | 125                | 225      | 250                    | 500                  | 176                   | 209                 |

| P/N            | Sensitivity x,y,z<br>(mV/A/m)<br>Min | Length<br>(mm) | Width<br>(mm) | Height<br>(mm) |
|----------------|--------------------------------------|----------------|---------------|----------------|
| 3DC11CAP-0238J | 40                                   | 13,0           | 12.8          | 3.7            |
| 3DC11CAP-0491J | 60                                   | 13,0           | 12.8          | 3.7            |
| 3DC11CAP-0720J | 85                                   | 13,0           | 12.8          | 3.7            |

This chart is a reference guide for the most common required values at working frequency of 125 kHz. Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance values in the different winding axis. **Please contact our sales department for any inquiry.**

L and Q factor measured at 125 kHz, 1 Vac.

Sensitivity measured with Helmholtz coils H=8.36 App/m @125 kHz. Contact us for measurement specification.

SRF: Self Resonant Frequency of the coil.