

# 3DC15F

## SMD 3D Coil

17.5x15.6x4.8mm MAX (2.47mH - 7.2mH)

3-AXIS TRANSPONDER INDUCTOR (3DCOILS™)



### APPLICATIONS

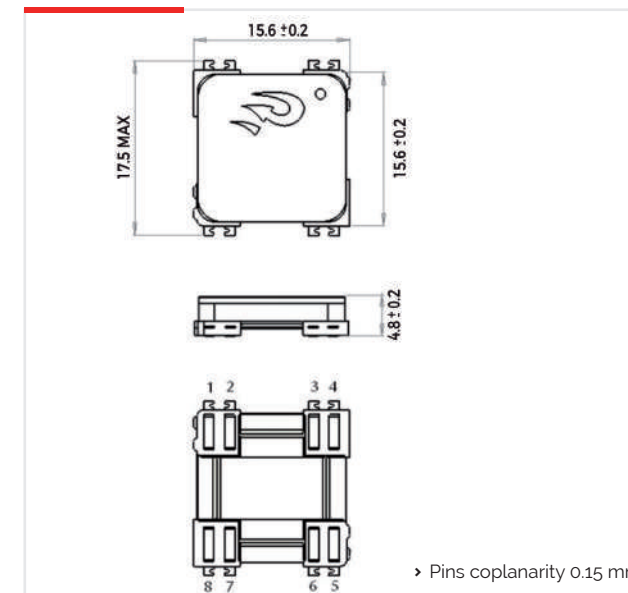
- › Automotive passive keyless entry systems.
- › Automotive TPMS with wake up functions.
- › Access control.
- › Tracking devices.

## 01 CHARACTERISTICS

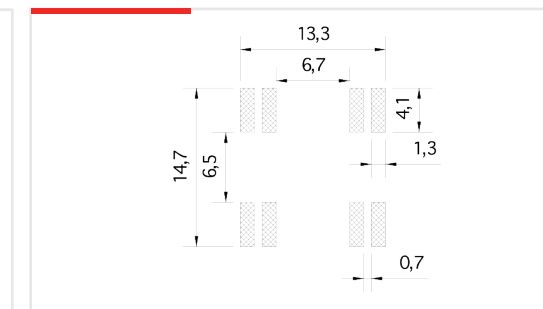
- › Evolution of the 3DC15 series.
- › The foam, placed on the top of the part, absorbs better the shocks and, thus, improves the mechanical performance of the piece.
- › High drop test resistance (up to 500 times 1m) due to a maximized pin area.
- › High stability in temperature (-40°C to +85°C).
- › Isotropic version available.
- › Designed for 125 kHz and 134 kHz.

## 02 SPECIFICATIONS

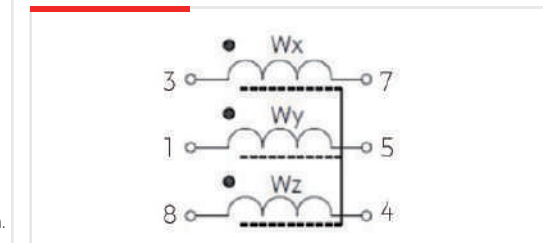
### DIMENSIONS (mm)



### RECOMMENDED PAD-LAYOUT



### ELECTRICAL DIAGRAM



### ELECTRICAL SPECIFICATIONS

| P/N          | L<br>x,y,z<br>(mH) | Q<br>x,y,z<br>Min | Frequency<br>(kHz) | Cres<br>(pF) | SRF x,y<br>(kHz)<br>Min | SRF z<br>(kHz)<br>Min | DCR<br>x,y (Ω)<br>Max | DCR<br>z (Ω)<br>Max | Sensitivity<br>x,y,z<br>(mVpp/App/m)<br>Min |
|--------------|--------------------|-------------------|--------------------|--------------|-------------------------|-----------------------|-----------------------|---------------------|---|
| 3DC15F-0247J | 2.47               | 22                | 125                | 656          | 400                     | 900                   | 75                    | 75                  | 65  |
| 3DC15F-0491J | 4.91               | 23                | 125                | 330          | 300                     | 700                   | 100                   | 140                 | 85  |
| 3DC15F-0720J | 7.20               | 25                | 125                | 225          | 250                     | 600                   | 120                   | 170                 | 95  |

| Length (mm) | Width (mm) | Height (mm) |
|-------------|------------|-------------|
| 15.6        | 17.5       | 4.8         |

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.