

Features

Small solution of 3D coil designed to achieve a very good electrical performance in the smallest dimensions. Applications:

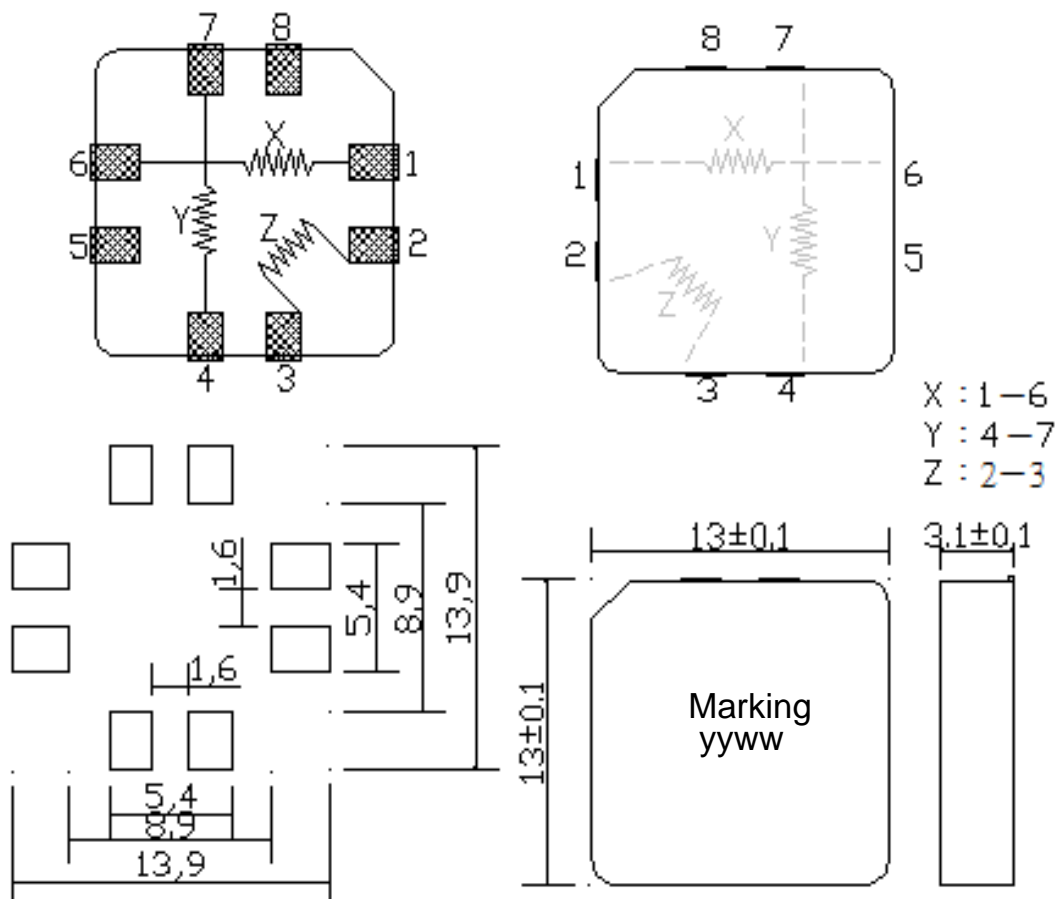
- Automotive.
- Passive keyless entry.
- RTPMS with wake up functions.
- Industrial logistics and control.
- Access control.
- Tracking devices.



Keyless entry systems is a typical application for this coil, the isotropy is often sought in RF antenna. In transponder applications, this feature has been achieved by the combination of 3 single coils oriented in the 3 space axis with the aim of covering the maximum space orientation.

This small size 3D coil offers the possibility of assembly in single component 3 coils with full functionality, thus reducing cost, saving PCB space and increasing the circuit reliability.

Dimensions





Electrical specifications

| Part Number | Inductance | Q | Inductance | Q | SRF (MHz) | SRF (KHz) | Remark |
|-------------|------------|-------------|------------|----------|-------------|-----------|--------|
| 产品料号 | X,Y轴 (mH) | X,Y轴 (Typ.) | Z轴(mH) | Z轴(Typ.) | X,Y轴 (Typ.) | Z轴(Typ.) | 备注 |
| | 电感值 (L) | 品质因素 | 电感值 (L) | 品质因素 | 共振频率 | 共振频率 | |
| M3D13-232 | 2.38±4% | 35 | 3.4±4% | 30 | 2 | 700 | |
| M3D13-472 | 4.77±4% | 35 | 7.2±4% | 30 | 1.5 | 500 | |
| M3D13-7221 | 7.2±4% | 35 | 7.2±4% | 30 | 1 | 500 | |
| M3D13-7222 | 7.2±4% | 35 | 10.8±4% | 30 | 1 | 400 | |
| M3D13-103 | 10±4% | 35 | 10.0±4% | 30 | 0.8 | 400 | |

※ Test Freq. : 125KHz / 1V.

※ Operating Temp. : -40°C ~ +85°C

※ Sensitivity (S0) measured with Helmholtz Coils H=8.36 A/m@125kHz.

※ SRF: Self Resonant Frequency of the coil.

※ Wx/Wy/Wz means winding coil of X, Y and Z axis.

※ f20/f125/f134.2 means resonant frequency of 20kHz, 125kHz and 134.2kHz.

※ Test under the condition of relative humidity of 85%

※ Any other inductance value at LF or tighter tolerances can be provided. Also can be supplied different inductance value in the different winding axis. Please contact our salesperson for any inquiries.

Soldering heat resistance:

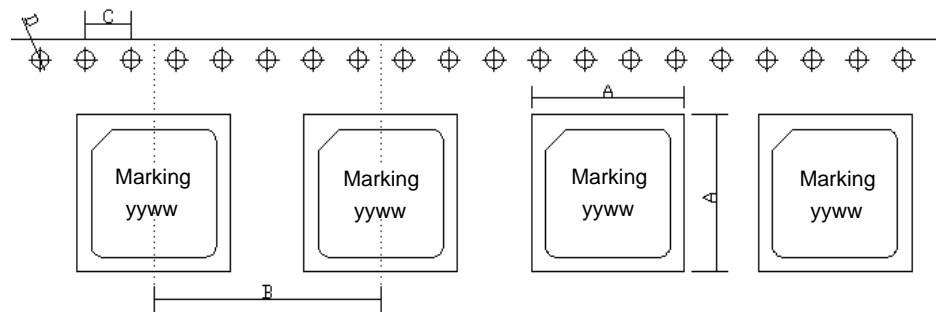
260°C / 10 sec

Operating temperature range:

-40°C to +125°C

Packaging unit (parts/reel):

1500



$$A=13.5, B=40, C=4, D=1.5$$