

Z AXES COIL 1003

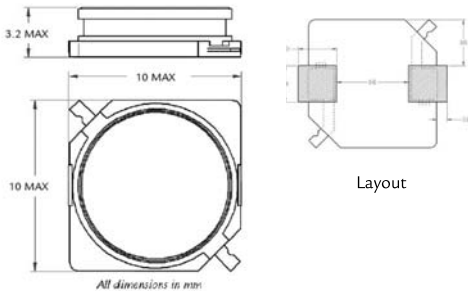
(16.2 mH - 2.38 mH)

SMD Z (vertical) AXES COIL Low Profile 10x10x3 mm

Features

This SMD coil offers a very low profile solution for applications in which it's needed a transponder vertical coil with high sensitivity in z direction and in a small surface area. It's so a lower profile solution for those applications in which the height of the component is critical. The design combines the best electrical performance in these dimensions together with mechanical robustness.

Dimensions



Applications:

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

Keyless entry systems is a typical application for this coil where performs high sensitivity in a very small package and with the advantage of easy SMD assembly. This design shows also very good sensitivity performance in angle deviation from z axes.

Characteristics

- Standard size 10x10x3 mm.
- Very good electrical and mechanical performance.
- High stability in temperature (-40 °C to +125 °C).
- Inductivity value can be customized to achieve customer requirements.
- Designs at lower frequencies such as 20 kHz and 40 kHz show a very good electrical performance as well.
- High sensitivity values achieved with very good thermal and mechanical performance.

Electrical specifications

P/N	L (mH)	C _{res} (pF)	Q	SRF (kHz)	RDC max (Ω)	Sensitivity (mV _{pp} /A _{pp} /m)
ZC1003-0238J	2.38	680	>55	>800	27	>20
ZC1003-0247J	2.47	656	>60	>800	28	>22
ZC1003-0345J	3.45	470	>60	>600	37	>25
ZC1003-0405J	4.05	400	>65	>600	37	>27
ZC1003-0477J	4.77	340	>70	>570	41	>30
ZC1003-0491J	4.91	330	>50	>500	60	>30
ZC1003-0720J	7.20	225	>55	>450	75	>35
ZC1003-0900J	9.00	180	>60	>400	85	>40
ZC1003-1008J	10.08	150	>65	>400	92	>45
ZC1003-1620J	16.20	100	>65	>330	144	>55

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 A_{pp}/m @125 kHz. Contact us for measurement specification.

SRF: Self Resonant Frequency of the coil.