

RFID transponder coils for LF, HF and UHF application

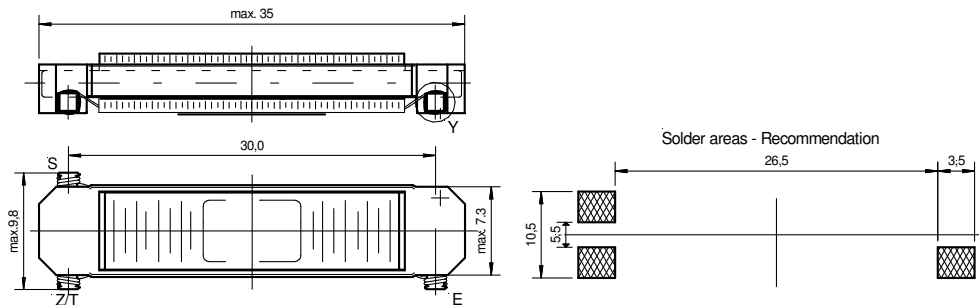
Rx-/Tx-Antennas

Series Ms 62

L [mH]	Q ≥	f _{L,Q} [kHz]	f _{res} ≥ [MHz]	R _{DC} ≤ [Ω]	I _{max} [mA]	S [mV/A/m]	Product No.
3.58	50	5.5	0.35	2.5	-	-	006169 01
3.58	90	21.8	0.35	2,5	-	20 ^{*1)}	888049 56
0.715	170	125	1.2	1.3	-	60 [*]	888049 57
0.960	170	125	1.1	1.5	300	60 [*]	888026 39
3	60	125	0.4	3.0	-	160 [*]	888022 42
7.2	50	125	0.3	5.0	175	-	888026 41

Gluing with PCB by HSF optional

S-measurement with Helmholtz coil at ^{*)}125 kHz, ^{*)}21,8 kHz



Applications:
Transponder antenna
Decoupling in RF- and IF-circuits
Use in frequency selective circuits

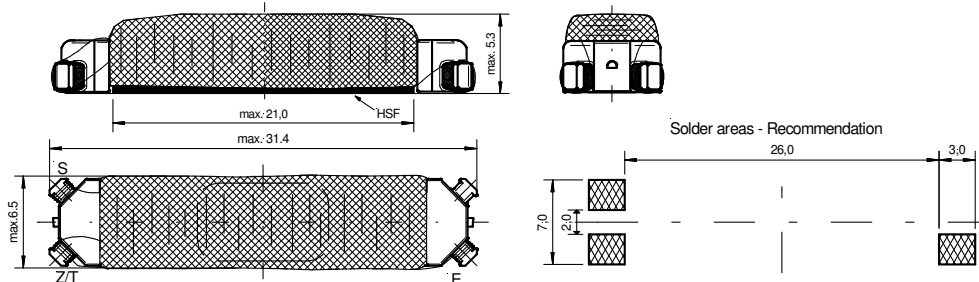


Series Ms 65

L [mH]	Q ≥	f _{L,Q} [kHz]	f _{res} ≥ [MHz]	R _{DC} ≤ [Ω]	I _{max} [mA]	S [mV/A/m]	Product No.
3,74	27	5.5	0.4	2.7	100	-	006169 51
3.74	27	21.8	0.4	2.7	100	18 ^{*1)}	888049 58
2.2	40	125	0.5	1.7	120	130 [*]	006169 52
1	50	125	0.9	1.1	200	70 [*]	006169 53
3	50	125	0.45	2.1	100	170 [*]	006169 54
5	50	125	0.33	4	90	210 [*]	888026 07

Gluing with PCB by HSF optional

S-measurement with Helmholtz coil at ^{*)}125 kHz, ^{*)}21,8 kHz



Applications:
Transponder antenna
Decoupling in RF- and IF-circuits
Use in frequency selective circuits



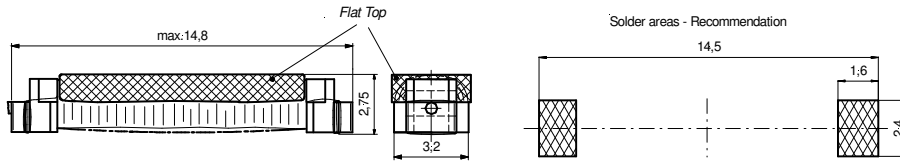
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Series Ms 32c [10µH-39mH]

L [mH]	Q ≥	f _{LQ} [kHz]	f _{res} ≥ [MHz]	R _{DC} ≤ [Ω]	I _{max} [mA]	S [mV/A/m]	Product No.
1.2	-	125	0.7	6.5	60	40 ^{*)}	888049 60
5.6	-	125	0.4	27	30	90 ^{*)}	888049 61
8.2	6	21.8	0.3	40	20	8 ^{*)}	888049 62
8.2	-	5.5	0.3	40	20	-	006132 60
9.5	8	21.8	0.3	48	18	10 ^{*)}	888049 63
9.5	-	5.5	0.3	48	18	-	888049 64
39	-	21.8	0.15	175	10	20 ^{*)}	888049 65
39	-	5.5	0.15	175	10	-	006132 70

Gluing with PCB by HSF optional

S-measurement with Helmholtz coil at ^{*)}125 kHz. ^{*)}21.8 kHz



Applications:

Transponder-
Identification- and
Safety-Devices (e.g. for
automotive systems)
Data transmission
5-200 kHz

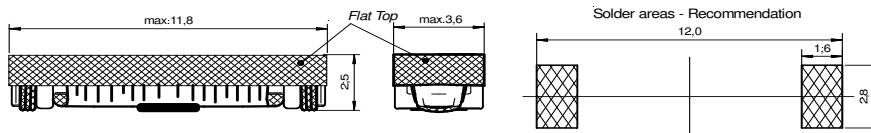


Series Ms 32k [1µH-39mH]

L [mH]	Q ≥	f _{LQ} [kHz]	f _{res} ≥ [MHz]	R _{DC} ≤ [Ω]	I _{max} [mA]	S [mV/A/m]	Product No.
0.4	12	125	1.5	2.8	-	11 ^{*)}	888049 66
1.6	10	125	0.9	11	75	18 ^{*)}	888049 67
2.37	15	125	0.6	17	65	25 ^{*)}	888049 68
4.7	15	125	0.5	40	-	40 ^{*)}	888025 10
7.2	10	125	0.4	62	-	100 ^{*)}	888049 69
26	4	21.8	0.23	153	15	10 ^{*)}	888049 70
26	4	5.5	0.23	153	15	-	006172 80

Gluing with PCB by HSF optional

S-measurement with Helmholtz coil at ^{*)}125 kHz. ^{*)}21.8 kHz



Applications:

Transponder antenna
Decoupling in RF-and IF-
circuits
Use in frequency
selective circuits

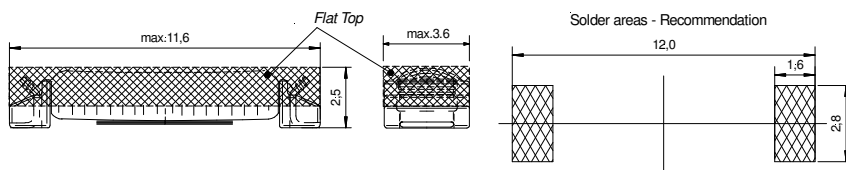


Series Ms 32ka [1µH-39mH]

L [mH]	Q ≥	f _{LQ} [kHz]	f _{res} ≥ [MHz]	R _{DC} ≤ [Ω]	I _{max} [mA]	S [mV/A/m]	Product No.
0.049	20	125	100	1.5	-	-	006172 75
0.190	35	125	2.6	3	-	7 ^{*)}	888025 00
2.38	45	125	0.6	23	50	33 ^{*)}	006172 40
2.66	55	125	0.6	26	50	35 ^{*)}	006172 44
4.7	40	125	0.45	40	-	50 ^{*)}	888025 05
7.2	40	125	0.35	56	25	65 ^{*)}	006172 43

Gluing with PCB by HSF optional

S-measurement with Helmholtz coil at ^{*)}125 kHz. ^{*)}21.8 kHz



Applications:

Transponder antenna
Decoupling in RF-and IF-
circuits
Use in frequency selective
circuits

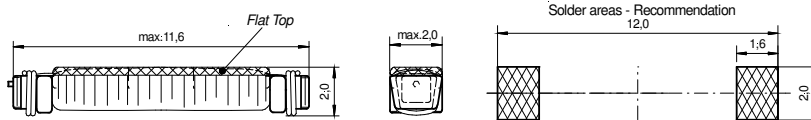


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Series Ms 18k [1µH-14mH]

L [mH]	Q ≥	f _L [kHz]	f _{res} ≥ [MHz]	R _{DC} [Ω] ±10%	I _{max} [mA]	S [mV/A/m]	Product No.
1.1	-	125	1.4	11	45		888049 42
1.8	-	125	1.0	22	35		888049 43
3.0	-	125	0.5	36	25		888049 44
4.7	9	125	0.45	38	-	40 [*])	888046 10
14	-	21.8	0.25	144	10		888049 45
14	-	5.5	0.25	144	10		888049 46
[µH]		[MHz]	[MHz]	[mΩ]			
1		13.56	-	80			888032 37

S-measurement with Helmholtz coil at ^{*})125 kHz. ^{**})21.8 kHz

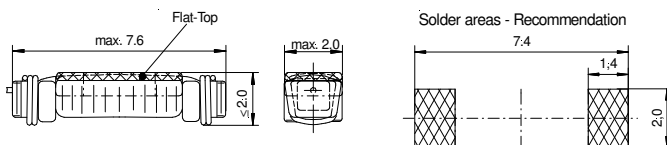


Applications:
Transponder antenna
Decoupling in RF-and IF-circuits
Use in frequency selective circuits



Series Ms 2074 [1µH-12mH]

L [mH]	Q ≥	f _L [kHz]	f _{res} ≥ [MHz]	R _{DC} [Ω] ±10%	I _{max} [mA]	Product No.
0.49	-	125	2.45	11	70	888049 47
1.6	-	125	1.45	22	35	888049 48
2.6	-	125	1.1	36	30	888049 49
10.8	-	21.8	0.6	144	15	888049 50
10.8	-	5.5	0.6	144	15	888049 51
[µH]		[MHz]	[MHz]	[mΩ]		
1.88	-	13.56	-	100	-	888025 69
5.82	-	13.56	-	230	-	888025 70

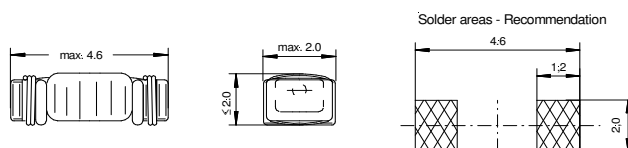


Applications:
Transponder antenna
Decoupling in RF-and IF-circuits
Use in hearing aids
Use in frequency selective circuits



Series Ms 2046 [1µH-2.7mH]

L [mH]	Q ≥	f _L [kHz]	f _{res} ≥ [MHz]	R _{DC} [Ω] ±10%	I _{max} [mA]	Product No.
0.26	-	125	4.2	11	90	888049 52
0.46	-	125	3.0	22	75	888049 53
0.82	-	125	2.2	36	50	888049 54
2.7	-	125	1.0	85	25	888049 55
[µH]		[MHz]		[mΩ]		
1.88	-	13.56	300	190	-	888025 72
5.82	-	13.56	30	270	-	888025 73



Applications:
Transponder antenna
Decoupling in RF-and IF-circuits
Use in hearing aids
Use in frequency selective circuits



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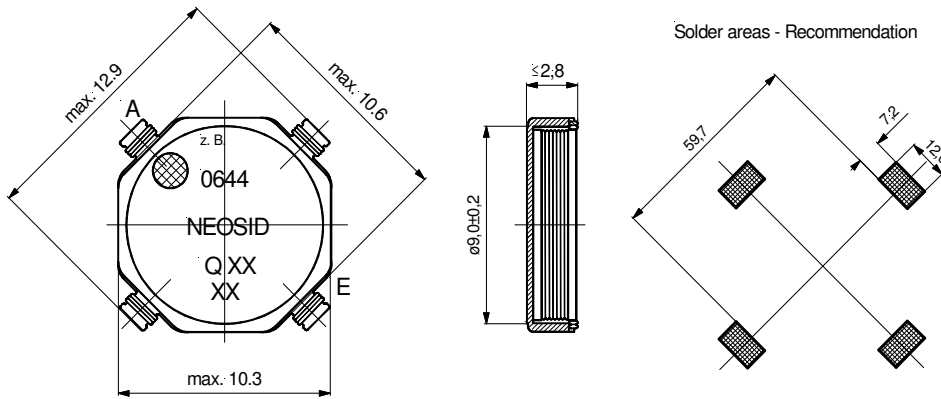
Z-Antenna

Series SM-W 902 [1µH-65mH]

L [mH]	Q ≥	f _{L,Q} [kHz]	f _{res} ≥ [MHz]	R _{DC} ≤ [Ω]	I _{max} [mA]	S [mV/A/m]	Product No.
0.11	50	125	9	0.8	270	-	888049 71
1.2	55	125	1.5	5.8	60	8 ^{*)}	888049 72
2.2	80	125	1.2	10	45	17 ^{*)}	006161 21
7.2	60	125	0.9	30	25	50 ^{*)}	006161 23
52.3	15	21.8	0.4	190	10	-	888049 73
52.3	8	5.5	0.4	190	10	-	888049 74
5	15	21.8	0.3	220	6	16 ^{*)}	888049 75
65	8	5.5	0.3	220	6	-	888049 76

S-measurement with Helmholtz coil at *)125 kHz. **)21.8 kHz

Applications:
Keyless entry systems
Safety systems RFID

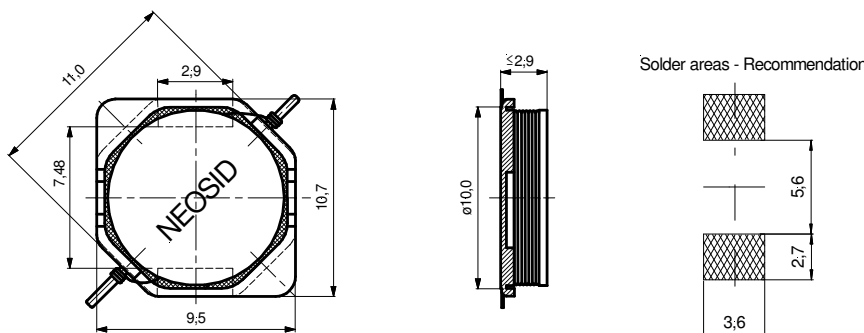


Series SM-W903 [1µH-65mH]

L [mH]	Q ≥	f _{L,Q} [kHz]	f _{res} ≥ [MHz]	R _{DC} ≤ [Ω]	I _{max} [mA]	S [mV/A/m]	Product No.
3.9	80	125	1.0	13.5	270	-	888031 00
2.37	80	125	1.1	12	40	17 ^{*)}	006161 56
1.2	55	125	1.5	5.8	60	8 ^{*)}	888049 77
2.2	80	125	1.2	11	45	17 ^{*)}	006161 51
3.45	75	125	-	15.5	30	-	006161 55
7.2	60	125	0.9	35	25	50 ^{*)}	006161 54
52.3	15	21.8	0.4	190	10	-	006161 52
52.3	8	5.5	0.4	190	10	-	888049 78
65	15	21.8	0.3	230	6	16 ^{*)}	006161 53
65	8	5.5	0.3	230	6	-	888049 79

S-measurement with Helmholtz coil at *)125 kHz. **)21.8 kHz

Applications:
Keyless entry systems
Safety systems RFID



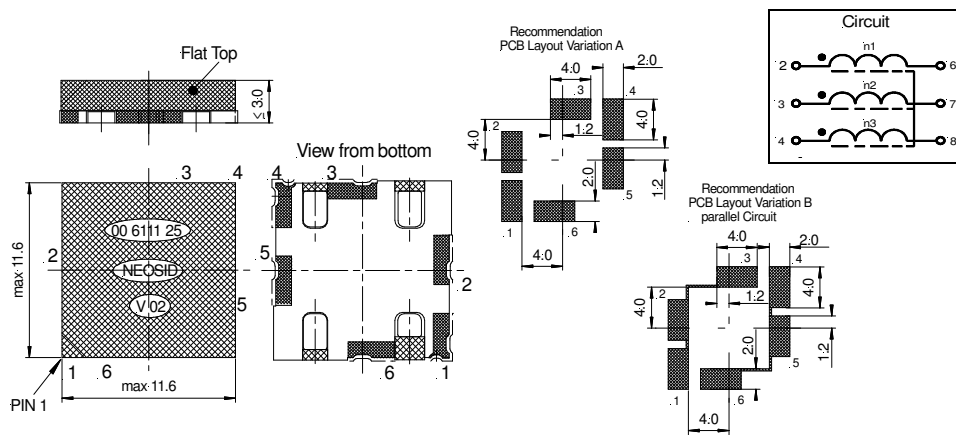
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3D-Antenna

Series 3D-11

L ₁ [mH]	Q ₁ ≥	R _{DC1} [Ω] ≤	L ₂ [mH]	Q ₂ ≥	R _{DC2} [Ω] ≤	L ₃ [mH]	Q ₃ ≥	R _{DC2} [Ω] ≤	3xS [mV/A/m]	f _{LQ} [kHz]	Product No.:	Variation
11.5	5	260	11.5	5	260	15.5	5	440	9 ^{*1)}	21.8	006111 21	A
4.82	15	120	4.82	15	120	5.87	15	150	75 ^{*2)}	125	006111 25	A
2.38	15	100	2.38	15	100	3.45	15	100	40 ^{*2)}	125	888015 08	A
2.47	15	70	2.47	15	70	2.47	15	70	40 ^{*2)}	125	888023 56	A
4.7	15	160	4.7	15	160	4.7	15	160	58 ^{*2)}	125	888015 91	A
7.1	15	200	7.1	15	200	9.0	15	200	90 ^{*2)}	125	888015 69	A
[μH]			[μH]			[μH]			Lp [μH]	MHz		
17.46	20	-	17.46	20	-	17.46	20	-	5.82	13.56	888023 89	B

S-measurement with Helmholtz coil at ^{*)}125 kHz. ^{*)}21.8 kHz



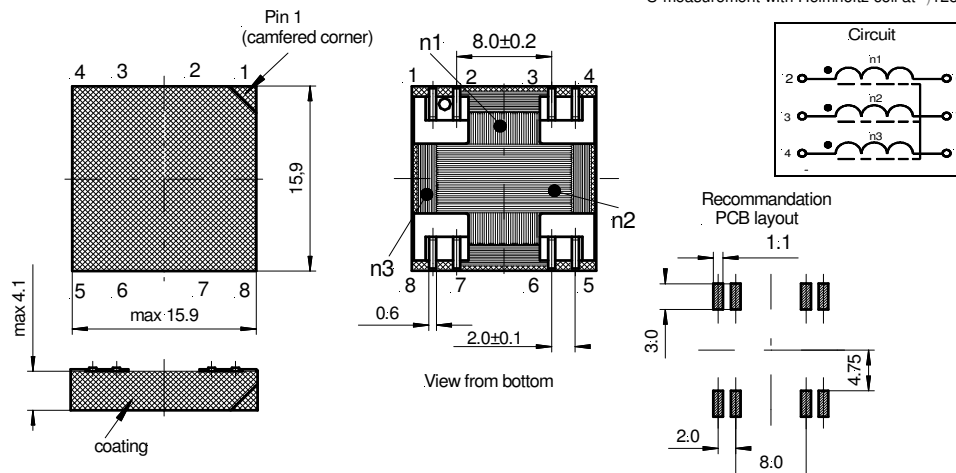
Applications:
 Keyless entry systems
 Keyless go
 Safety systems RFID



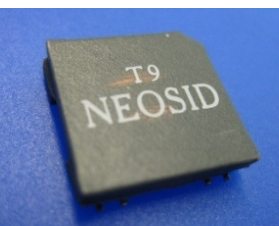
Series 3D-15

L ₁ [mH]	Q ₁ ≥	R _{DC1} [Ω] ≤	L ₂ [mH]	Q ₂ ≥	R _{DC2} [Ω] ≤	L ₃ [mH]	Q ₃ ≥	R _{DC2} [Ω] ≤	f _{LQ} [kHz]	3xS [mV/A/m]	Art. Nr.:
4.7	11	140	4.7	11	140	4.7	26	115	125	120 ^{*2)}	006115 25
4.5	25	80	4.5	25	80	5.0	25	120	125	115 ^{*2)}	006115 26
2.38	17	80	2.38	17	80	3.45	26	80	125	62 ^{*2)}	006115 27
2.47	23	45	2.47	23	45	2.47	25	72	125	62 ^{*2)}	006115 28
2.47	27	45	2.47	27	45	2.8	26	72	125	62 ^{*2)}	006115 29
[μH]			[μH]			[μH]			[MHz]		
5.82	30	1.5	5.82	25	1.6	5.82	12	1.3	13.56		888025 74

S-measurement with Helmholtz coil at ^{*)}125 kHz. ^{*)}21.8 kHz



Applications:
 Keyless entry systems
 Keyless go
 Safety systems RFID



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Transponderantennen für RFID

Wir fertigen komplizierte Ferrite in einem speziellen Spritzgussverfahren und haben somit weitaus größere Möglichkeiten der Formgebung.

So ist es je nach Einsatzmöglichkeit, Anwendungsgebiet und Konstruktionskonzept eine Vielfalt an Formen machbar. Dies ermöglicht es uns, kundenspezifische RFID Transponder-Spulen herzustellen.

Kennzeichen

- ✓ Geringe Höhe
- ✓ Automatisch bestückbar
- ✓ Für Reflow- und Dampfphasenlötung
- ✓ Ansaugfläche ASF
- ✓ Verklebung mit PCB durch HSF (Heiß-Siegel-Fläche) für optimale Falltesteigenschaften
- ✓ Betriebstemperaturbereich -40°C bis +125°C

Anwendungen

- ✓ Transponder-. Identifikation- und Sicherheitssysteme (z.B. Automotive)
- ✓ Schlüssellose Eintrittssysteme
- ✓ RFID Sicherheitssysteme

RFID Transponder Coils

We manufacture intricate ferrites in a special injection-molding process, which opens up far more options when it comes to shaping.

This means that a multitude of shapes is feasible, depending on the application envisaged and the design concept.

This enables us to produce transponder coils for customer's specification.

Features

- ✓ Low height
- ✓ Suitable for automatic insertion
- ✓ For reflow and vapor phase soldering
- ✓ Pick and place area ASF
- ✓ Gluing with PCB by HSF (hot melting dot) for optimal drop test performance
- ✓ Operating temperature range -40°C to +125°C

Applications

- ✓ Transponder-. Identification- and Safety-Devices (e.g. for automotive systems)
- ✓ Keyless entry systems
- ✓ Safety systems RFID

