Leaded Inductors (Fixed Choke Coils)

FASTRON leaded inductors come with a very wide inductance range from 0.1µH to 100000µH and with high Q values. They are available in tape and ammopack packing.

Applications

These components are suitable for decoupling and interference suppression.
Communication: RF blocking and filtering, e.g. 12 ~ 16 kHz blocking filter.
Others: Automotive electronics, electronic household appliances, entertainment electronics, lighting devices, medical applications.

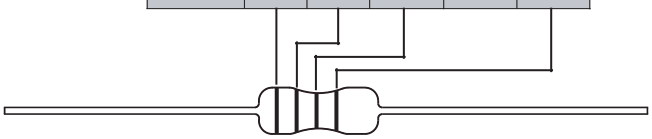
Technical Data

L – Value (rated inductance)	Measured with Bode 100 Vector Network Analyzer or equivalent at frequency f_L
Q – Factor (min)	Measured with Bode 100 Vector Network Analyzer or equivalent at frequency f_Q
SRF (min)	Measured with HP 8753ES Network Analyzer or equivalent
DCR (max)	Measured at 25°C
Rated DC Current	I based on temperature rise, determined at the point where the temperature rise does not exceed 40°C above the ambient temperature of 25°C I1 Current based on ambient temperature of 40°C and component temperature of max. 125°C Isat Current based on inductivity drop of 10% related to the unloaded inductivity
Operating Temperature	-55°C to +125°C (including component self-heating)
Recommended soldering method	Wave
Solderability	Using lead free solder (Sn 99.9) at 260°C ± 5°C for 5 ± 0.5 seconds, min 90% solder coverage of metallization Standard: IEC 68-2-20 (Ta)
Resistance to Soldering Heat	Resistant to 260°C ± 5°C for 10 ± 1 seconds Standard: IEC 68-2-20 (Tb)
Resistance to Solvent	Resistant to Isopropyl alcohol for 5 ± 0.5 minutes at 23°C ± 5°C Standard: IEC 68-2-45
Climatic Test	Defined by the following standards IEC 68-2-1 for Cold test: -55°C for 96 hours IEC 68-2-2 for Dry heat test: +125°C for 96 hours IEC 60068-2-78 for Humidity test: 40°C at RH 95% for 4 days
Tensile Strength of Leads (Pull Test)	Components withstand a pulling force of 10N for 10 ± 1 second For MICC, MICC/N, MICCS, MICCS/N : Components withstand a pulling force of 5N for 10 ± 1 second IEC 60068-2-21 (Ua_1)
Mechanical Shock	Mil-Std 202 Method 213 Condition C 3 axis, 6 times, total 18 shocks 100 G, 6 ms, half-sine
Vibration	Mil-Std 202 Method 204 20 mins at 5G 10 Hz to 2000 Hz 12 cycles each of 3 orientations

Colour Coding

Reference according to IEC 60062 :

L (µH) / Code	Nominal Inductance (µH) Band 1	Band 2	Band 3	Band 4	Tol. ** code
Gold	---	---	x 0.1	± 5 %	J
Silver	---	---	x0.01	± 10 %	K
Clear	---	---	---	± 20 %	M
Black	---	0	x1	---	---
Brown	1	1	x10	± 1 %	F
Red	2	2	x100	± 2 %	G
Orange	3	3	x1000	± 3 %	A
Yellow	4	4	x10000	---	---
Green	5	5	---	---	---
Blue	6	6	---	---	---
Violet	7	7	---	---	---
Grey	8	8	---	---	---
White	9	9	---	---	---



Ordering Code

Example: SMCC-180X-YY

SMCC - **180** **X** - **YY**
(Model) (Inductance Value) (Tolerance) (Packing Code)

↓

SMCC-180K-01

Core Type - Ferrite, Phenolic

Tolerances - F (1%), G (2%), H (2.5%), A (3%), J (5%), K (10%), M (20%)

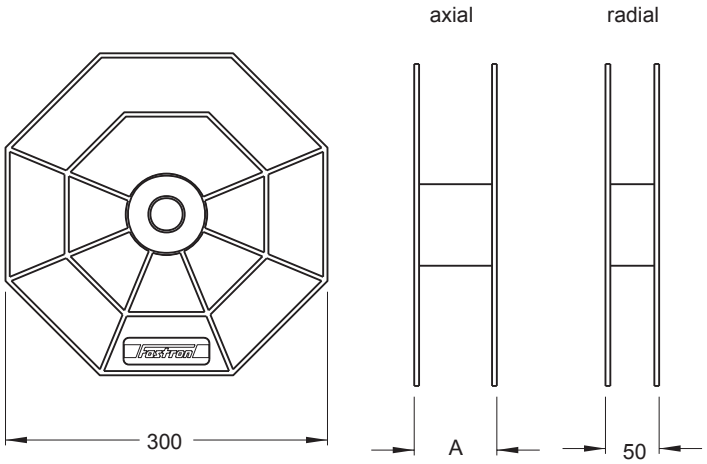
Packing Code

Packing Form	Taped / Reel	Taped / Ammo pack
Axial	01	02
Radial	31	32

Packing Specification

Fig. 1: On Reel (Plastic)

Packing code : 01, 31



Types	A (mm)
Standard	77
12CCM	101

Fig. 2: Ammo pack, axial

Packing code : 02

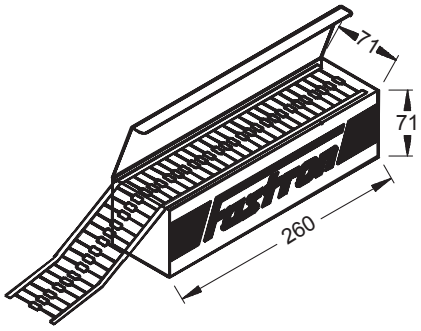
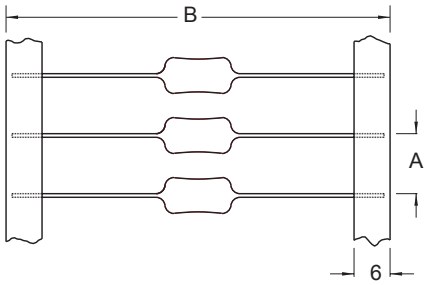


Fig. 3: Axial Standard Taping

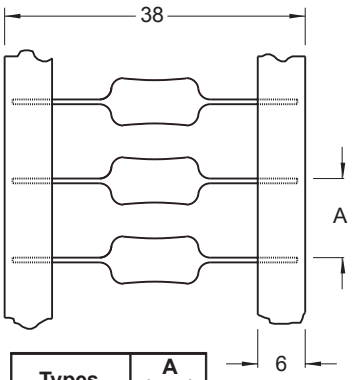
Packing code : 01, 02



Types	A (mm)	B (mm)
Standard	5	65
Optional; standard HBCC, HCCC, VHBCC, XHBCC, XHBHV, 08CCM	10	65
12CCM	10	91

Fig. 4: Axial Narrow Taping (38mm)

Packing code : 11, 12

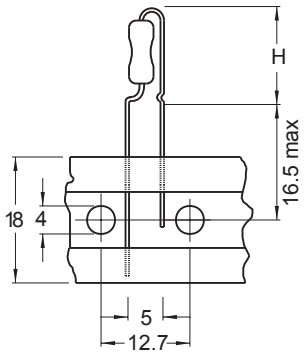


Types	A (mm)
Standard	5
Optional	10

Packing Specification

Fig. 5: Radial Taping

Packing code : 31, 32



without insulation	H max. (mm)
MICC, MICCS	12.5
SMCC	16
HBCC	16

Radial Taping for Avisert available on request

Fig. 6: Ammo pack, radial

Packing code : 32

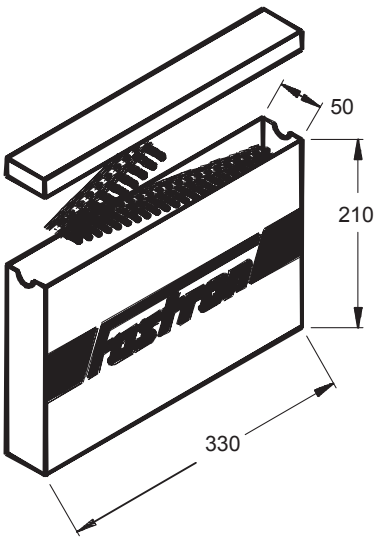
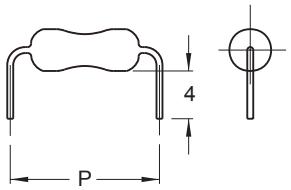


Fig. 7: Axial preformed

Packing code : 20



Types	P (mm)
HACC	12.5
LACC	17.5
MECC	15.0
MICC,MICC/N	10.0
MICCS	10.0
SMCC,SMCC/N, 05CCM	12.5

Other pitch available on request

HACC

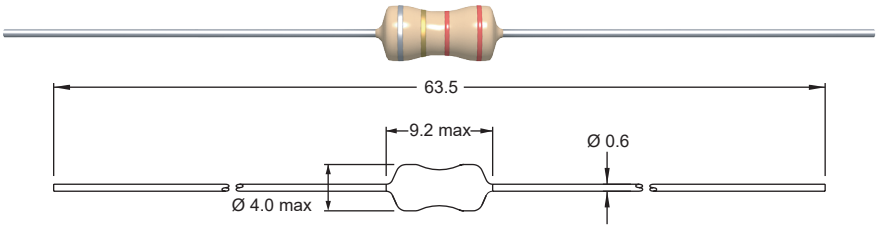
High SRF

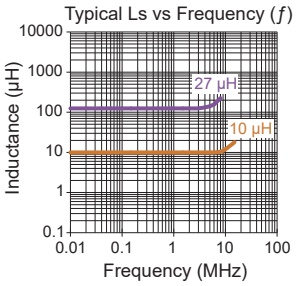
RoHS Halogen Free

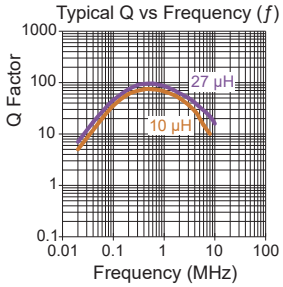
Mechanical Shock Vibration Proof

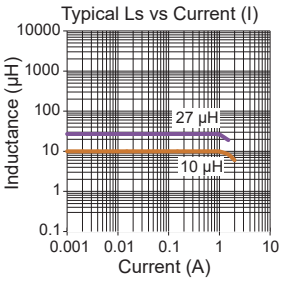
(Fixed Choke Coils)

Leaded Inductors









Part No	Inductance L (µH)	f_L (MHz)	Tol ± (%)	Q min	f_Q (MHz)	SRF min (MHz)	DCR max (Ω)	Rated DC Current (A)
HACC-4R7X-YY	4.7	1	**10**,20	50	7.96	60	0.17	1.30
HACC-5R6X-YY	5.6	1	**10**,20	50	7.96	45	0.19	1.25
HACC-6R8X-YY	6.8	1	**10**,20	40	7.96	35	0.22	1.20
HACC-8R2X-YY	8.2	1	**10**,20	40	7.96	25	0.24	1.15
HACC-100X-YY	10	1	**10**,20	40	2.52	21	0.25	1.10
HACC-120X-YY	12	0.02	**10**,20	35	2.52	17	0.27	1.05
HACC-150X-YY	15	0.02	**10**,20	35	2.52	16	0.30	1.00
HACC-180X-YY	18	0.02	**10**,20	35	2.52	15	0.33	0.95
HACC-220X-YY	22	0.02	**10**,20	35	2.52	13	0.37	0.90
HACC-270X-YY	27	0.02	**10**,20	35	2.52	11	0.42	0.85
HACC-330X-YY	33	0.02	**10**,20	35	2.52	11	0.54	0.65
HACC-470X-YY	47	0.02	**10**,20	35	2.52	11	0.90	0.60
HACC-102X-YY	1000	0.79	**10**,20	60	0.79	2.8	18.0	0.12

Core Material: Ferrite

Revision date: 11 Aug 2014

SPQ:

Packaging Form	Taped / Reel	Taped / Ammo pack
Axial	-	1200 [-02]
Radial	1500 [-31]	1000 [-32]

- Bold figure for **Tol%** is standard
- All dimensions in mm