

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 ammpack packing.

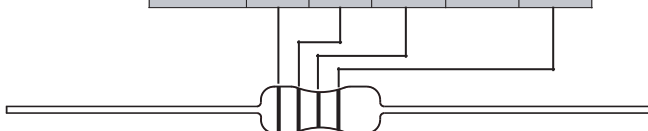
Applications These components are suitable for decoupling and interference suppression.
Communication: RF blocking and filtering, e.g. 12 ~ 16 kHz blocking filter.
Others: Automotive electronics, electronic household appliances, entertainment electronics, lighting devices, medical applications.

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 (Ua1)
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 :

Code	Nominal Inductance (µH)				Tol. **
	Band 1	Band 2	Band 3	Band 4	
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

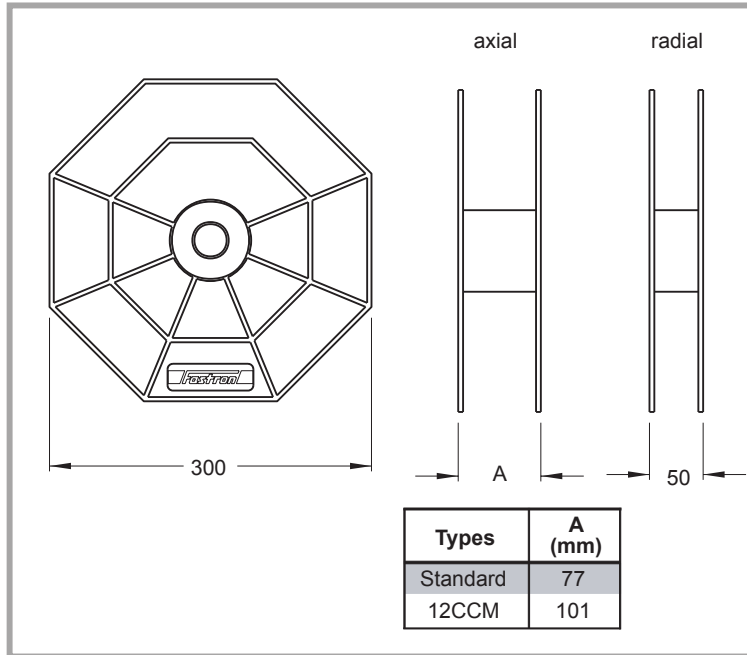


Fig. 2: Ammo pack, axial

Packing code : 02

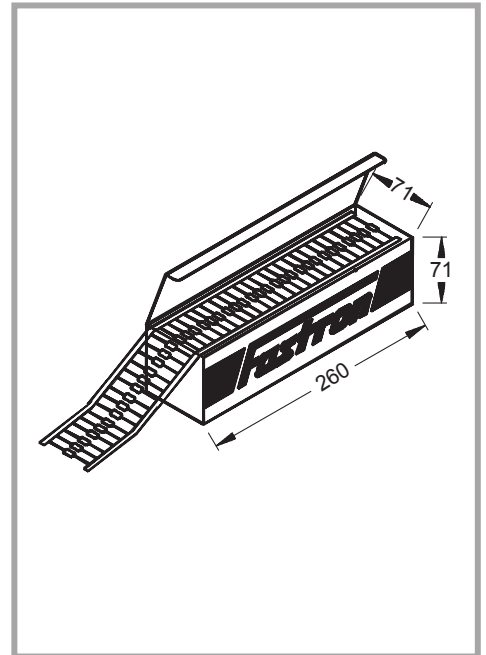


Fig. 3: Axial Standard Taping

Packing code : 01, 02

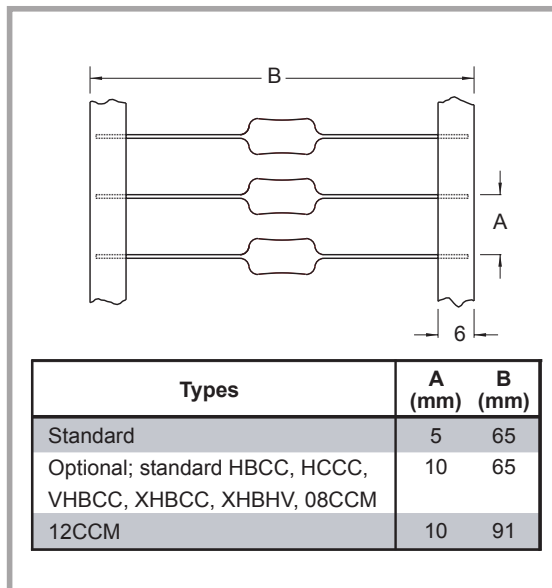
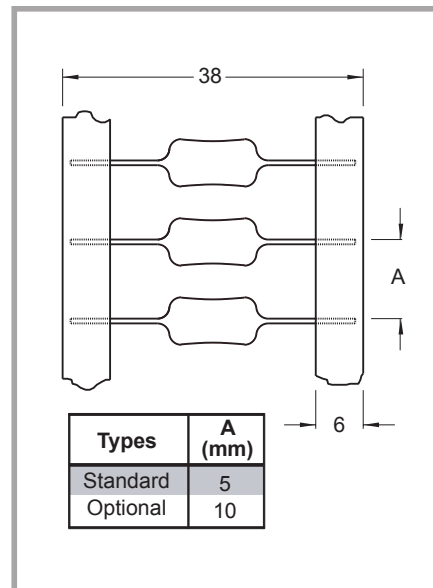


Fig. 4: Axial Narrow Taping (38mm)

Packing code : 11, 12



Packing Specification

Fig. 5: Radial Taping

Packing code : 31, 32

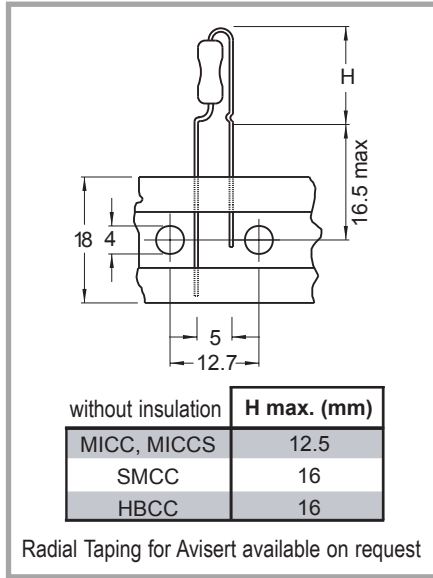


Fig. 6: Ammo pack, radial

Packing code : 32

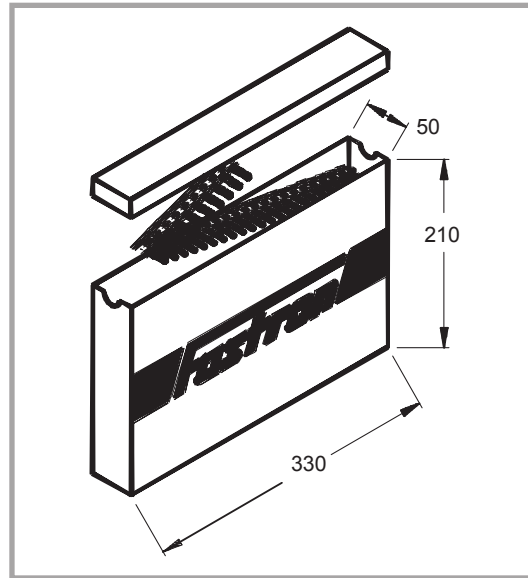
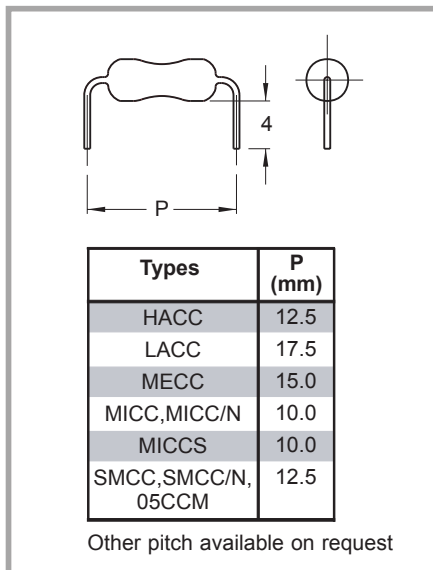


Fig. 7: Axial preformed

Packing code : 20



Packing Specification

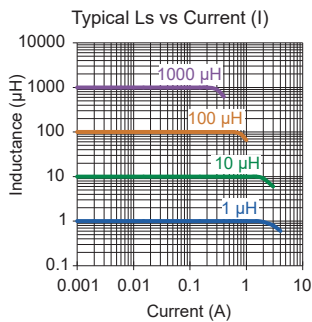
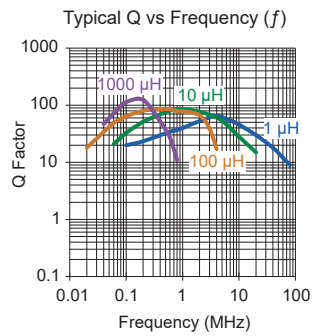
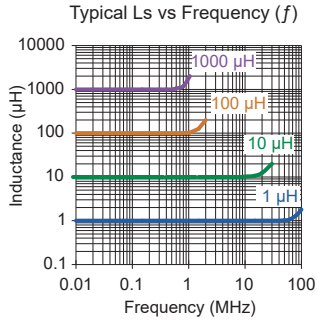
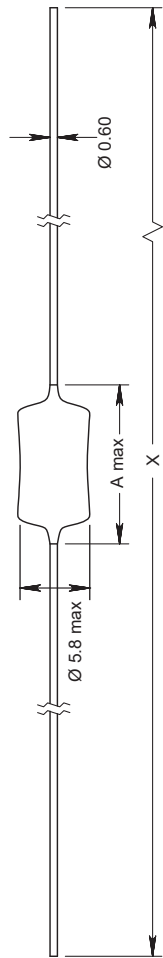
HBCC



Leaded Inductors

(Fixed Choke Coils)

L (μH)	A (max)	X
1.0 - 18	14.5	63
22 - 100000	12.8	66



Single layer (typ)

Part No	Inductance	f _L	Tol	Q	f _a	SRF	DCR	Rated DC
	L (μH)	(MHz)	± (%)	min	(MHz)	min (MHz)	max (Ω)	Current (A)
HBCC-1R0X-YY	1.0	1	5,10	40	7.96	200	0.08	2.20
HBCC-1R2X-YY	1.2	1	5,10	40	7.96	185	0.09	2.15
HBCC-1R5X-YY	1.5	1	5,10	40	7.96	170	0.10	2.10
HBCC-1R8X-YY	1.8	1	5,10	40	7.96	155	0.10	2.00
HBCC-2R2X-YY	2.2	1	5,10	40	7.96	140	0.11	1.90
HBCC-2R7X-YY	2.7	1	5,10	40	7.96	130	0.12	1.80
HBCC-3R3X-YY	3.3	1	5,10	40	7.96	120	0.14	1.75
HBCC-3R9X-YY	3.9	1	5,10	40	7.96	110	0.15	1.70
HBCC-4R7X-YY	4.7	1	5,10	40	7.96	100	0.16	1.60
HBCC-5R6X-YY	5.6	1	5,10	40	7.96	90	0.17	1.55
HBCC-6R8X-YY	6.8	1	5,10	40	7.96	80	0.19	1.50
HBCC-8R2X-YY	8.2	1	5,10	40	7.96	70	0.20	1.45
HBCC-100X-YY	10	1	5,10	60	2.52	60	0.22	1.40
HBCC-120X-YY	12	0.02	5,10	60	2.52	40	0.26	1.30
HBCC-150X-YY	15	0.02	5,10	60	2.52	20	0.30	1.25
HBCC-180X-YY	18	0.02	5,10	60	2.52	17	0.33	1.20
HBCC-220X-YY	22	0.02	5,10	40	2.52	12	0.35	1.10
HBCC-250X-YY	25	0.02	5,10	40	2.52	10	0.39	1.00
HBCC-270X-YY	27	0.02	5,10	40	2.52	10	0.39	1.00
HBCC-330X-YY	33	0.02	5,10	40	2.52	8.0	0.43	0.90
HBCC-390X-YY	39	0.02	5,10	40	2.52	6.5	0.47	0.85
HBCC-470X-YY	47	0.02	5,10	40	2.52	5.0	0.50	0.80
HBCC-560X-YY	56	0.02	5,10	40	2.52	4.5	0.55	0.75
HBCC-680X-YY	68	0.02	5,10	30	2.52	4.0	0.60	0.70
HBCC-820X-YY	82	0.02	5,10	30	2.52	3.7	0.65	0.65
HBCC-101X-YY	100	0.02	5,10	50	0.796	3.5	0.70	0.60
HBCC-121X-YY	120	0.02	5,10	50	0.796	3.2	1.00	0.55
HBCC-151X-YY	150	0.02	5,10	50	0.796	3.0	1.20	0.50
HBCC-181X-YY	180	0.02	5,10	50	0.796	2.7	1.40	0.45
HBCC-221X-YY	220	0.02	5,10	50	0.796	2.4	1.60	0.40
HBCC-271X-YY	270	0.02	5,10	50	0.796	2.1	1.80	0.37
HBCC-331X-YY	330	0.02	5,10	50	0.796	1.9	2.0	0.33
HBCC-391X-YY	390	0.02	5,10	50	0.796	1.7	2.3	0.31
HBCC-471X-YY	470	0.02	5,10	40	0.796	1.5	2.5	0.28
HBCC-561X-YY	560	0.02	5,10	40	0.796	1.4	2.9	0.26
HBCC-681X-YY	680	0.02	5,10	40	0.796	1.3	3.2	0.24
HBCC-821X-YY	820	0.02	5,10	30	0.796	1.25	3.5	0.22
HBCC-102X-YY	1000	0.02	5,10	60	0.252	1.20	3.8	0.20
HBCC-122X-YY	1200	0.02	5,10	60	0.252	1.10	5.2	0.18
HBCC-152X-YY	1500	0.02	5,10	60	0.252	1.00	6.5	0.16
HBCC-182X-YY	1800	0.02	5,10	60	0.252	0.90	8	0.14
HBCC-222X-YY	2200	0.02	5,10	60	0.252	0.80	9	0.12
HBCC-272X-YY	2700	0.02	5,10	60	0.252	0.70	12	0.12
HBCC-332X-YY	3300	0.02	5,10	60	0.252	0.60	15	0.11
HBCC-392X-YY	3900	0.02	5,10	60	0.252	0.55	18	0.10
HBCC-472X-YY	4700	0.02	5,10	60	0.252	0.50	22	0.09
HBCC-502X-YY	5000	0.02	5,10	60	0.252	0.40	24	0.09
HBCC-532X-YY	5300	0.02	5,10	60	0.252	0.40	30	0.08
HBCC-682X-YY	6800	0.02	5,10	60	0.252	0.40	30	0.08
HBCC-103X-YY	10000	0.02	5,10	50	0.079	0.35	42	0.06
HBCC-153X-YY	15000	0.02	5,10	50	0.079	0.30	68	0.05
HBCC-183X-YY	18000	0.02	5,10	50	0.079	0.26	120	0.04
HBCC-223X-YY	22000	0.02	5,10	50	0.079	0.26	120	0.04
HBCC-333X-YY	33000	0.02	5,10	50	0.079	0.22	150	0.035
HBCC-363X-YY	36000	0.02	5,10	50	0.079	0.22	150	0.035
HBCC-473X-YY	47000	0.02	5,10	40	0.079	0.18	230	0.030
* HBCC-683X-YY	68000	0.02	5,10	40	0.079	0.15	290	0.025
* HBCC-104X-YY	100000	0.02	5,10	40	0.079	0.12	390	0.020

Core Material: Ferrite

SPQ:

Packaging Form	Taped / Reel	Taped / Ammo pack
Axial	1200 [-01]	600 [-02]
Radial	1000 [-31]	1800 [-32]

Remarks:

* This inductance does not comply to IEC standard.

Revision date: 07 May 2020