

Shielded Power Inductors – MSS6122



- 6.1 × 6.1 mm footprint; 2.2 mm high shielded inductors
- Low DCR and excellent current handling

Designer's Kit C363 contains 3 of each value

Core material Ferrite

Core and winding loss See www.coilcraft.com/coreloss

Terminations RoHS compliant matte tin over nickel over phos bronze (current production) or gold over nickel over phos bronze (prior production). Other terminations available at additional cost.

Weight 0.19 – 0.23 g **Ambient temperature** –40°C to +85°C with (40°C rise) Irms current.

Maximum part temperature +125°C (ambient + temp rise). **Derating.**

Storage temperature Component: –40°C to +125°C.

Tape and reel packaging: –40°C to +80°C

Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)

Failures in Time (FIT) / Mean Time Between Failures (MTBF)

38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

Packaging 500/7" reel, 1500/13" reel; Plastic tape: 16 mm wide, 0.3 mm thick, 12 mm pocket spacing, 2.1 mm pocket depth

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance ² ±20% (µH)	DCR max (Ohms)	SRF typ ³ (MHz)	Isat (A) ⁴			Irms (A) ⁵	
				10% drop	20% drop	30% drop	20°C rise	40°C rise
MSS6122-472ML_	4.7	0.065	65.0	1.44	1.66	1.82	1.60	2.30
MSS6122-562ML_	5.6	0.083	60.0	1.22	1.46	1.60	1.50	2.10
MSS6122-682ML_	6.8	0.100	48.0	1.18	1.36	1.50	1.40	2.00
MSS6122-822ML_	8.2	0.120	44.0	1.12	1.24	1.36	1.30	1.80
MSS6122-103ML_	10	0.150	42.0	0.98	1.10	1.20	1.20	1.70
MSS6122-123ML_	12	0.176	40.0	0.97	1.06	1.14	1.13	1.60
MSS6122-153ML_	15	0.210	38.0	0.85	0.97	1.04	1.06	1.50
MSS6122-183ML_	18	0.280	35.0	0.78	0.89	0.97	0.99	1.40
MSS6122-223ML_	22	0.310	32.0	0.64	0.75	0.82	0.92	1.30
MSS6122-273ML_	27	0.350	26.0	0.62	0.71	0.77	0.85	1.20
MSS6122-333ML_	33	0.460	22.0	0.60	0.69	0.74	0.77	1.10
MSS6122-393ML_	39	0.540	19.0	0.50	0.59	0.64	0.70	1.00
MSS6122-473ML_	47	0.680	18.0	0.47	0.55	0.60	0.63	0.90
MSS6122-563ML_	56	0.740	17.0	0.43	0.50	0.54	0.56	0.80
MSS6122-683ML_	68	1.000	16.0	0.40	0.46	0.50	0.49	0.70
MSS6122-823ML_	82	1.200	15.0	0.37	0.43	0.46	0.42	0.60
MSS6122-104ML_	100	1.370	12.5	0.32	0.37	0.40	0.35	0.50

1. Please specify **termination** and **packaging** codes:

MSS6122-104MLC

Termination: L = RoHS compliant matte tin over nickel over phos bronze (current production) or gold over nickel over phos bronze (prior production)

Special order:

T = RoHS tin-silver-copper (95.5/4/0.5) over gold over nickel over phos bronze or

S = non-RoHS tin-lead (63/37) over gold over nickel over phos bronze.

Packaging: C = 7" machine-ready reel EIA-481 embossed plastic tape (500 per full reel).

B = Less than full reel In tape, but not machine-ready. To have a leader and trailer added (\$25 charge), use code letter C instead.

D = 13" machine-ready reel EIA-481 embossed plastic tape. Factory order only, not stocked (1500 per reel per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/HP 4263B LCR meter or equivalent.
3. SRF measured using an Agilent/HP 4191A or equivalent.
4. DC current at 25°C that causes the specified inductance drop from its value without current. [Click for temperature derating information.](#)
5. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings. [Click for temperature derating information.](#)
6. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

SPICE models

ON OUR WEB SITE OR CD



www.coilcraft.com

US +1-847-639-6400 sales@coilcraft.com

UK +44-1236-730595 sales@coilcraft-europe.com

Taiwan +886-2-2264 3646 sales@coilcraft.com.tw

China +86-21-6218 8074 sales@coilcraft.com.cn

Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 640-1 Revised 09/02/15

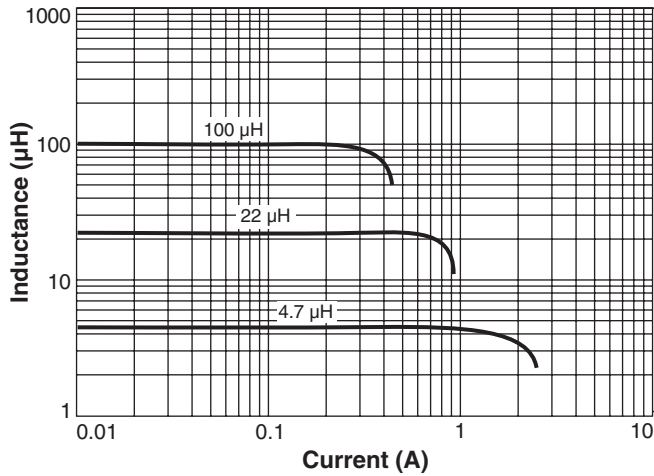
© Coilcraft Inc. 2016

This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.

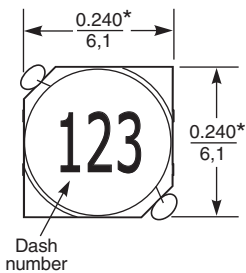
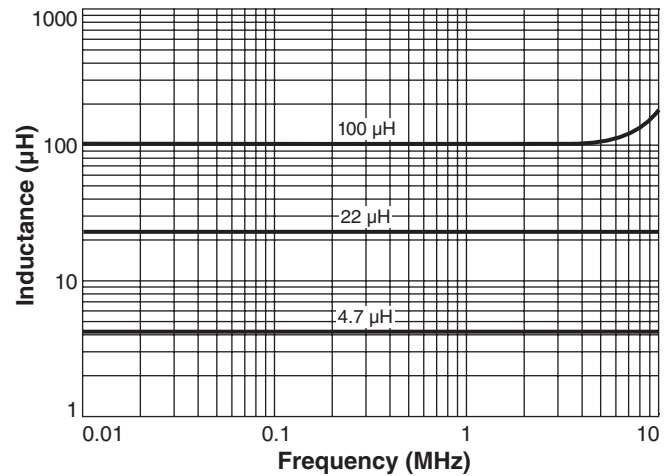


Shielded Power Inductors – MSS6122

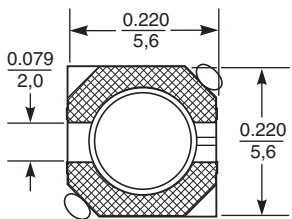
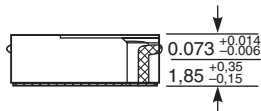
Typical L vs Current



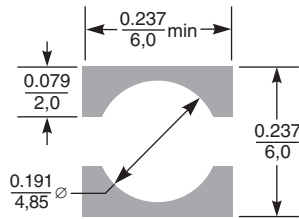
Typical L vs Frequency



*Dimensions are of the case not including the termination. For maximum overall dimensions including the termination, add 0.016 in / 0,4 mm.



Recommended Land Pattern



Dimensions are in $\frac{\text{inches}}{\text{mm}}$



US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

Document 640-2 Revised 09/02/15
 © Coilcraft Inc. 2016
 This product may not be used in medical or high risk applications without prior Coilcraft approval. Specification subject to change without notice. Please check web site for latest information.