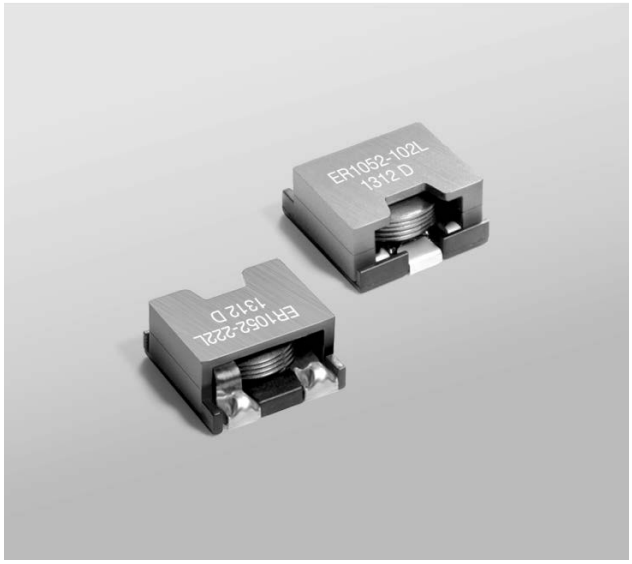
Shielded Power Inductors – ER1052



- High current, low DCR shielded power inductors
- 10.2 × 11 mm base; only 5.2 mm tall

Designer's Kit C421 contains 3 of each value
Core and winding loss
Core material Ferrite
Terminations RoHS compliant tin-silver-copper over tin over nickel over phos-bronze (pins 1 and 2); matte tin over nickel over phos bronze (pin 3). Other terminations available at additional cost.
Weight 1.6 g
Ambient temperature –40°C to +85°C with (40°C rise) Irms current.
Maximum part temperature +125°C (ambient + temp rise).**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 200/7″ reel; 700/13″ reel Plastic tape: 24 mm wide, 0.4 mm thick, 16 mm pocket spacing, 5.45 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

Part number[1]	Inductance ±20%[2] (µH)	DCR max[3] (mOhm)	SRF typ[4] (MHz)	Isat (A)[5] 10% drop	Isat (A)[5] 20% drop	Isat (A)[5] 30% drop	Irms(A)[6] 20°C rise	Irms(A)[6] 40°C rise
ER1052-801ML_	0.80	4.0	100	24.9	25.2	25.6	12.5	16.3
ER1052-102ML_	1.0	4.0	95	16.5	17.0	17.5	12.5	16.3
ER1052-122ML_	1.2	6.0	91	20.5	21.0	21.3	11.0	15.0
ER1052-132ML_	1.3	4.0	81	12.9	16.8	17.2	12.5	16.3
ER1052-152ML_	1.5	4.0	75	13.5	14.0	14.5	11.0	15.0
ER1052-182ML_	1.8	6.0	70	13.3	13.8	14.3	11.0	15.0
ER1052-202ML_	2.0	9.0	65	15.3	15.8	16.2	8.5	11.5
ER1052-222ML_	2.2	4.0	58	8.9	9.6	10.0	12.5	16.3
ER1052-252ML_	2.5	7.5	55	11.4	11.8	12.1	9.0	12.0
ER1052-322ML_	3.2	6.0	53	7.3	7.8	8.5	11.0	15.0
ER1052-402ML_	4.0	9.0	47	8.3	8.5	8.8	8.5	11.5
ER1052-432ML_	4.3	7.5	44	6.4	6.8	7.0	9.0	12.0
ER1052-572ML_	5.7	9.0	35	5.4	5.8	6.0	8.5	11.5

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

ER1052-572MLD

Termination: L = RoHS compliant tin-silver-copper over tin over nickel over phos-bronze (pins 1 and 2); matte tin over nickel over phos bronze (pin 3).
Special order:
T = RoHS tin-silver-copper over copper (95.5/4/0.5) or **S** = non-RoHS tin-lead (63/37).

Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape (200 parts 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 (700 parts per full reel)

2. Inductance measured at 100 kHz, 0.1 Vrms, 0 Adc on an Agilent/HP 4284A or equivalent.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using an Agilent/HP 4395A network analyzer and an Agilent/HP 16193A test fixture.
5. DC current at 25°C that causes the specified inductance drop from its value without current.
6. Current that causes the specified temperature rise from 25°C ambient. This information is for reference only and does not represent absolute maximum ratings.
7. Electrical specifications at 25°C.

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

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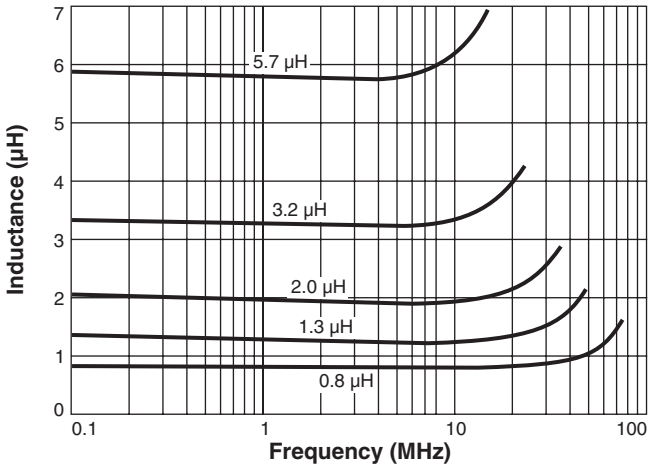
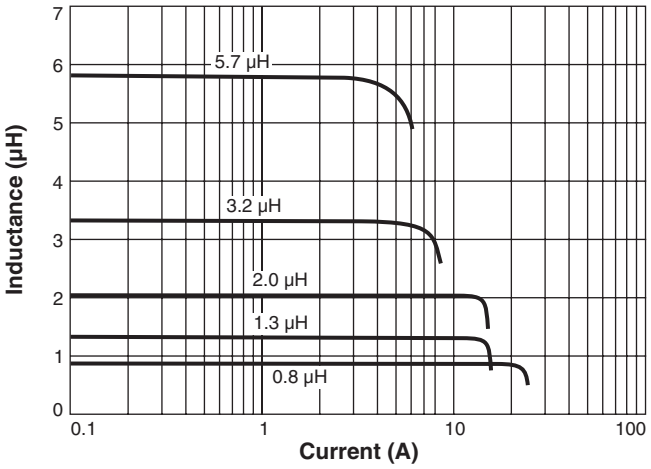
Specification subject to change without notice.
Please check web site for latest information.

Shielded Power Inductors - ER1052 Series

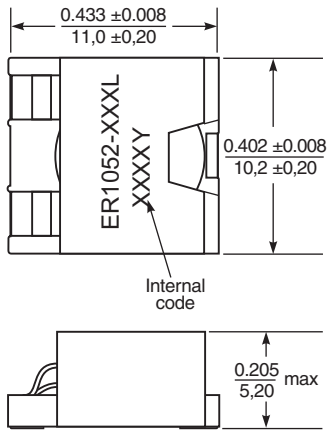
Typical L vs Frequency

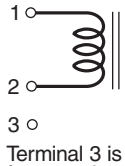


Typical L vs Current

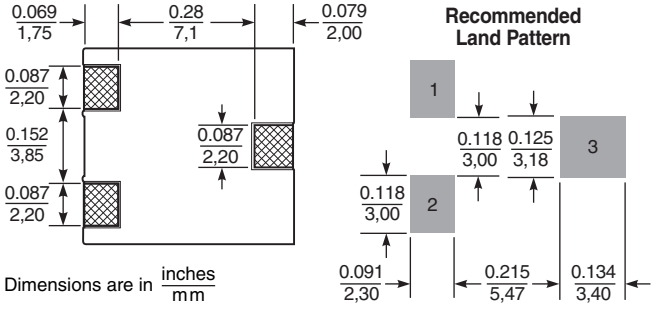


Prior to 2012, parts may have been marked differently





Terminal 3 is for mounting stability only.



Dimensions are in inches / mm

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Specification subject to change without notice.
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