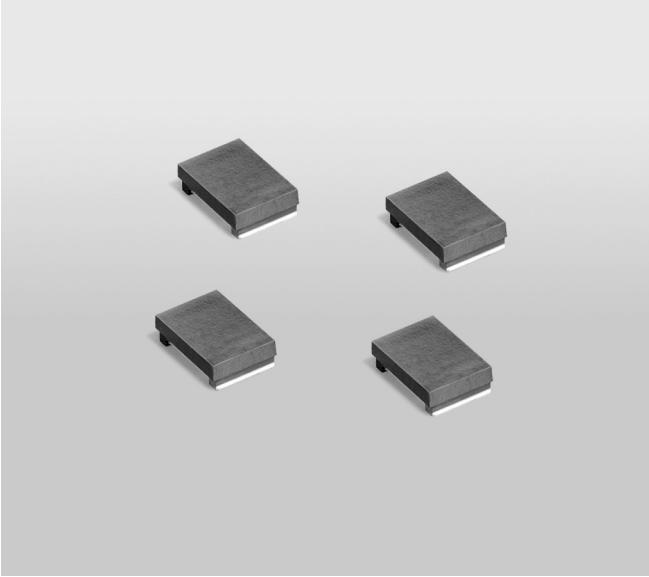
Shielded Power Inductors – XFL4517



- Low cost, low profile miniature power inductor
- Only 1.7 mm high; requires a mere 16 mm² of board space
- Provides current handling of much larger inductors; up to 6.5 A.

Core material Composite
Core and winding loss
Environmental RoHS compliant, halogen free
Terminations RoHS compliant, matte tin over nickel over silver-platinum-glass frit. Other terminations available at additional cost.
Weight 89.8 mg
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 1000/7″ reel; 5000/13″ reel. Plastic tape: 12 mm wide, 0.21 mm thick, 8 mm pocket spacing, 1.65 mm pocket depth
PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash.

Part number[1]	Inductance[2] ±20% (µH)	DCR (mOhms)[3] typ	DCR (mOhms)[3] max	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
XFL4517-681ME_	0.68	40	50	375	4.1	6.0	6.5	1.9	2.7
XFL4517-102ME_	1.0	50	60	300	3.5	4.8	5.3	1.7	2.3
XFL4517-222ME_	2.2	78	95	235	2.7	4.0	4.2	1.4	1.8
XFL4517-332ME_	3.3	150	180	205	2.2	2.9	3.2	0.85	1.2
XFL4517-472ME_	4.7	210	250	185	2.0	2.7	3.0	0.80	1.1
XFL4517-562ME_	5.6	240	290	170	1.7	2.4	2.6	0.70	1.0
XFL4517-822ME_	8.2	390	460	150	1.4	2.1	2.3	0.50	0.69
XFL4517-103ME_	10	620	700	97	1.0	1.4	1.5	0.63	0.83

1. When ordering, please specify **termination** and **packaging** codes:

XFL4517-103MEC

Termination: **E** = RoHS compliant matte tin over nickel over silver.
Special order, added cost:
Q = RoHS tin-silver-copper (95.5/4/0.5) or **P** = non-RoHS tin-lead (63/37).

Packaging: **C** = 7″ machine-ready reel. EIA-481 embossed plastic tape (1000 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 (5000 parts per full reel).

2. Inductance tested at 100 kHz, 0.1 Vrms, 0Adc.
3. DCR measured using a micro-ohmmeter.
4. SRF measured using an Agilent/HP 8753D network analyzer and a PulseGM SMD-D 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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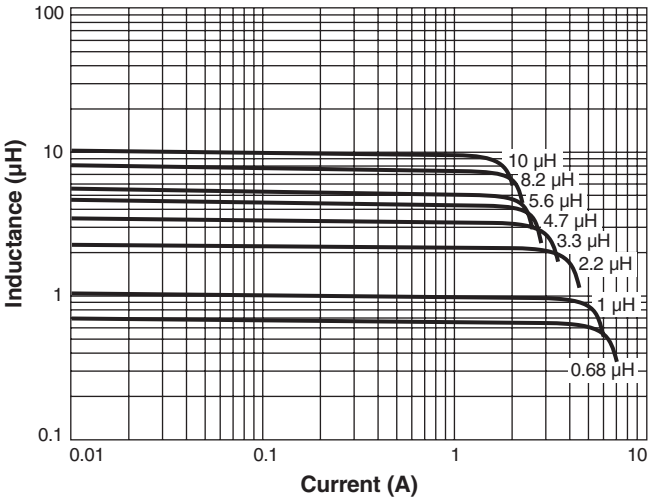
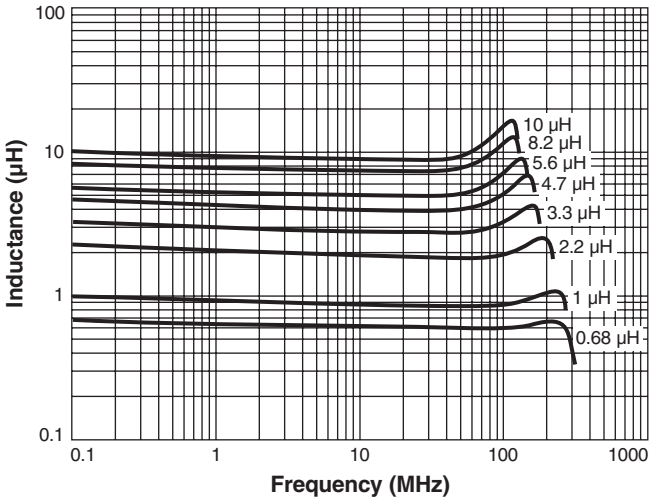
Specification subject to change without notice.
Please check web site for latest information.

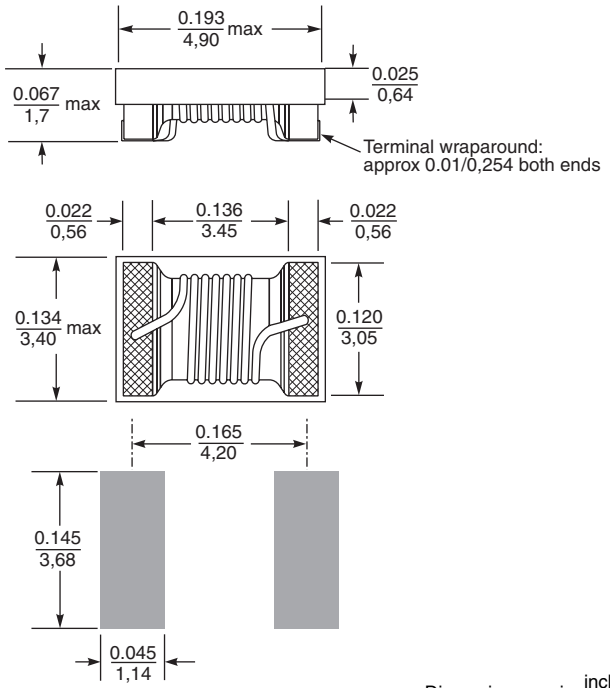
XFL4517 Series

L vs Current



L vs Frequency





Recommended Land Pattern

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

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Specification subject to change without notice.
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