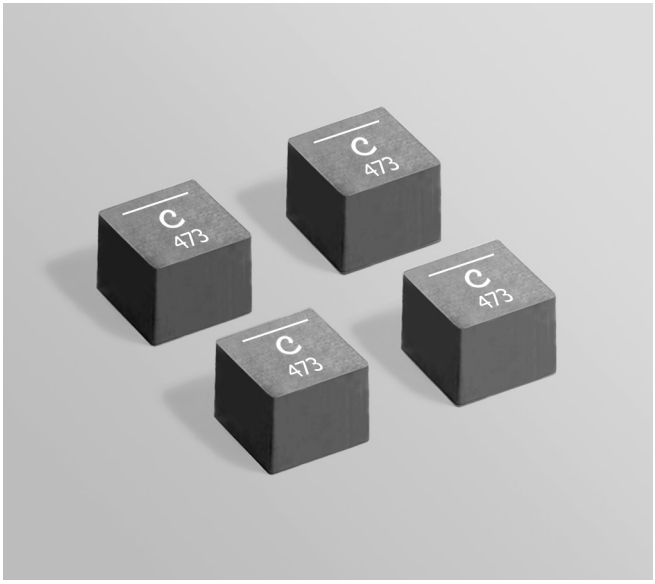
RoHS/ REACH COMPLIANT

Halogen Free

AEC Q200 +125°C

Shielded Power Inductor XFL6060-473



- Designed for STMicroelectronics LED5000 3 A monolithic step-down current source
- High current and low DCR; soft saturation
- AEC-Q200 Grade 1 (–40°C to +125°C)

Core material Composite
Terminations RoHS compliant tin-silver over copper.
Environmental RoHS compliant, halogen free
Weight 1.3 g
Ambient temperature –40°C to +125°C with (40°C rise) Irms current.
Operating voltage 0 – 20 V
Maximum part temperature +165°C (ambient + temp rise). Derating.
Storage temperature Component: –55°C to +165°C.
Tape and reel packaging: –55°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)
Packaging 250/7″ reel; 750/13″ reel Plastic tape: 16 mm wide, 0.4 mm thick, 12 mm pocket spacing, 6.23 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 (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
XFL6060-473ME_	47	68.4	75.3	7.8	1.4	1.6	1.8	2.8	3.7

1. When ordering, please specify **packaging** code:

XFL6060-473MEC

Packaging: C = 7″ machine-ready reel. EIA-481 embossed plastic tape (250 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer ($25 charge).
B = Less than full reel. In an effort to simplify our part numbering system, Coilcraft is eliminating the need for multiple packaging codes. When ordering, simply change the last letter of your part number from B to C.
D = 13″ machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (750 parts per full reel).

2. Inductance tested at 1 MHz, 0.1 Vrms, 0 Adc.
3. DCR measured on a micro-ohmmeter.
4. SRF measured using Agilent/HP 4395A or equivalent.
5. DC current at 25°C that causes the specified inductance drop from its value without current. Click for temperature derating information.
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. Click for temperature derating information.
7. Electrical specifications at 25°C.

Refer to Doc 362 “Soldering Surface Mount Components” before soldering.

Irms Testing

Irms testing was performed on 0.75 inch wide × 0.25 inch thick copper traces in still air.

Temperature rise is highly dependent on many factors including pcb land pattern, trace size, and proximity to other components. Therefore temperature rise should be verified in application conditions.

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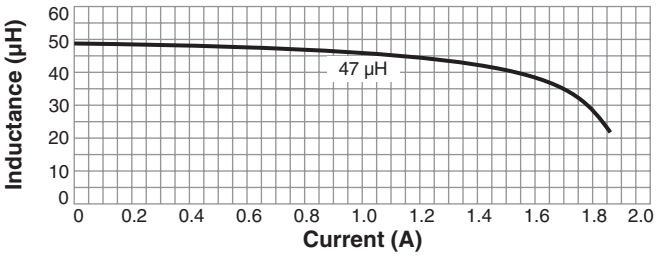
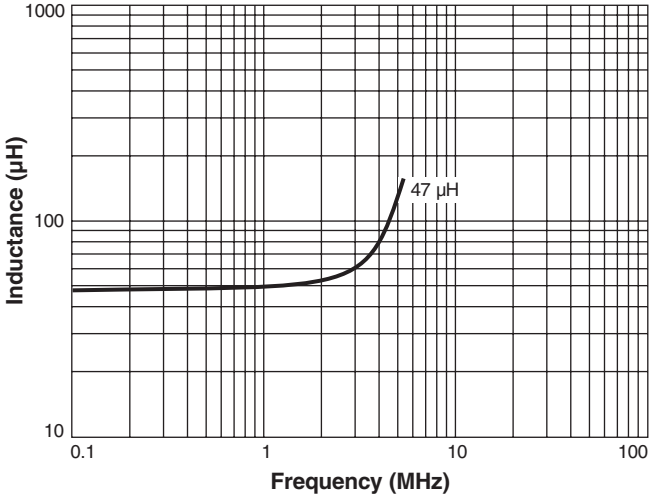
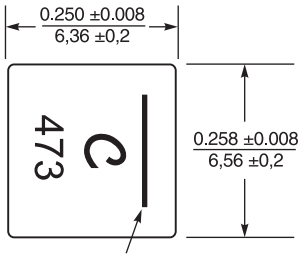
Shielded Power Inductor – XFL6060-473

L vs Current

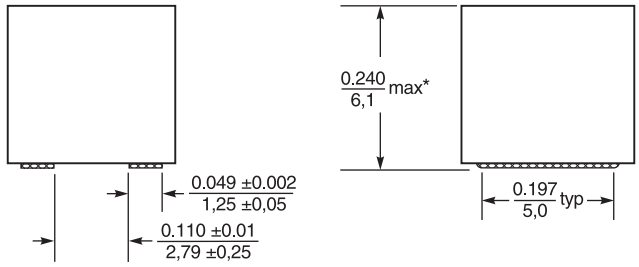


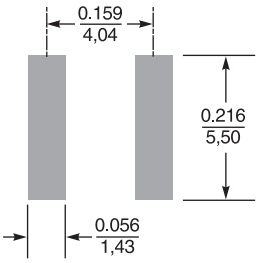
L vs Frequency





Indicates direction of terminals and start (short) lead. Connect high dv/dt here for lowest EMI.





Recommended Land Pattern

* For optional tin-lead and tin-silver-copper terminations, dimensions are for the mounted part. Dimensions before mounting can be an additional 0.005 inch / 0.13 mm.

Dimensions are in inches / mm

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