



CCFL Transformers

FL3209 parts have been improved.

The new FL3209-5L and FL3209-6L are electrically equivalent to the FL3209-1L, FL3209-2L, FL3209-3L and FL3209-4L, and have an improved physical design. We will continue to support existing customers of the superseded parts.

The FL Series of transformers is designed for use in cold cathode fluorescent lamp (CCFL) power supplies at

operating frequencies up to 100 kHz. With output power from 3.5 to 6.0 Watts, these transformers are ideal for LCD backlight applications. They are available in two different gull wing, surface mount packages and one in-board configuration for height restricted designs.

Free evaluation samples are available by contacting Coilcraft or ordering them on-line at www.coilcraft.com.

Part number ¹	Schematic	Package	Turns ratio		Output (Watts)	Inductance ² nom (μ H)	I _{max} sec (mA)	V _{rms} ³		V _{inst max} ⁴		DCR max (Ohms)		
			pri:sec	pri:fb				pri	sec	pri	sec	pri	sec	fb
FL2015-1L_	B	1	1:67	1:0.19	6.0	43	5.0	22	1600	25.0	2000	0.220	285	0.10
FL2015-2L_	A	1	1:67	1:0.19	6.0	43	5.0	23	1600	29.0	2000	0.220	285	0.10
FL2015-3L_	A	1	1:100	1:0.25	6.0	19	5.0	16	1600	20.0	2000	0.190	285	0.10
FL2015-4L_	A	1	1:50	1:0.14	6.0	44	7.0	32	1600	40.0	2000	0.220	165	0.10
FL2015-5L_	A	1	1:125	1:0.38	6.0	20	7.0	12	1600	16.0	2000	0.160	330	0.10
FL2015-6L_	B	1	1:67	1:0.19	6.0	48	11.0	23	1600	29.0	2000	0.160	176	0.10
FL2015-7L_	A	1	1:67	1:0.19	6.0	50	11.0	23	1600	29.0	2000	0.160	176	0.10
FL2015-8L_	A	1	1:86	1:0.21	6.0	31	11.0	18	1600	23.0	2000	0.132	176	0.10
FL2015-9L_	A	1	1:100	1:0.25	6.0	22	11.0	16	1600	20.0	2000	0.132	176	0.10
FL2015-10L_	A	1	1:93	1:0.25	4.5	40	11.0	17	1600	21.0	2000	0.175	675	0.50
FL3209-5L_	C	5	1:100	—	3.5	48	5.0	16	1600	20.0	2000	0.350	362	—
FL3209-6L_	D	5	1:93	1:0.17	3.5	40	5.0	17	1600	21.0	2000	0.400	800	0.08
FL2810-1L_	C	4	1:100	—	4.5	35	7.0	15	1500	16.5	1650	0.220	500	—

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

↓
FL2810-1LD

Packaging: D = 13" machine ready reel. EIA-481 embossed plastic tape.

Package 1: 400 parts per full reel.

Package 4: 750 parts per full reel.

Package 5: 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 D instead.

2. Inductance is measured across both halves of the primary.

3. V_{rms} = continuous voltage.

4. V_{inst} = instantaneous voltage at startup.

5. Ambient operating temperature range -40°C to +85°C.

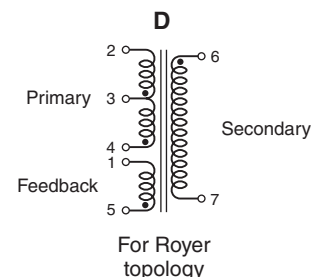
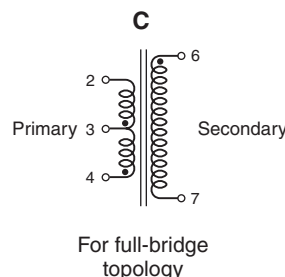
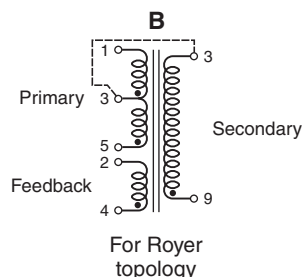
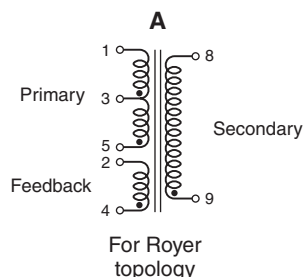
6. Electrical specifications at 25°C.

Isolation (tested for one minute)

Part number	Primary to secondary	Primary to feedback	All windings to core
FL2015	1500 Vrms	500 Vrms	1500 Vrms
FL3209	500 Vrms	500 Vrms	1500 Vrms
FL2810	1500 Vrms	—	1500 Vrms

Note: For Schematic B, primary is connected to secondary at pin 3. The primary is not isolated from the secondary.

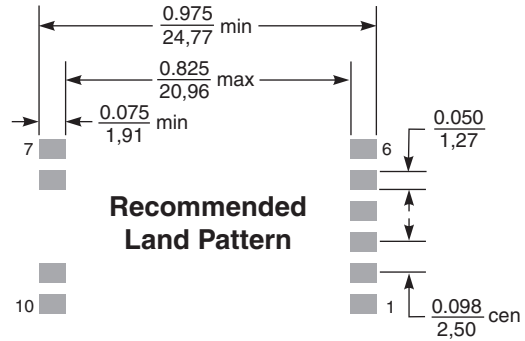
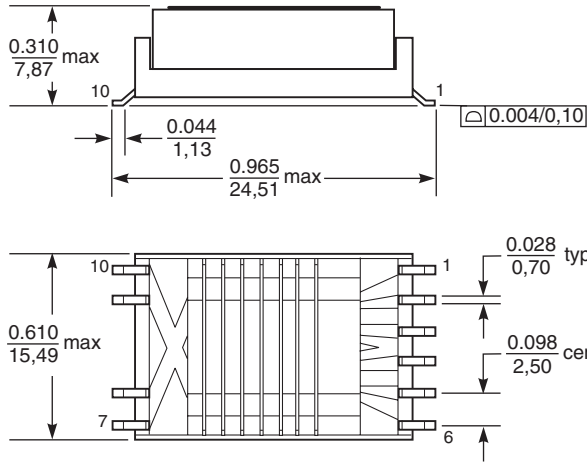
Schematics





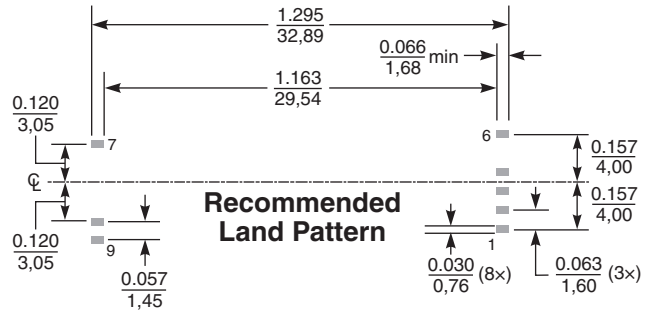
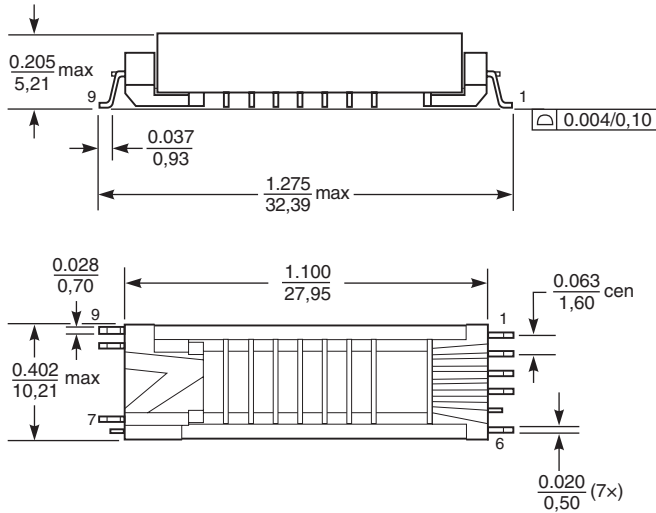
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Package 1



Weight: 5.5 – 6.1 g
Terminations: Tin-silver over tin over nickel over phos-bronze
Tape and reel: 400/13" reel 44 mm tape width
 For packaging data see Tape and Reel Specifications section.

Package 4



Weight: 3.6 g
Terminations: Tin-silver over tin over nickel over phos-bronze
Tape and reel: 750/13" reel 44 mm tape width
 For packaging data see Tape and Reel Specifications section.



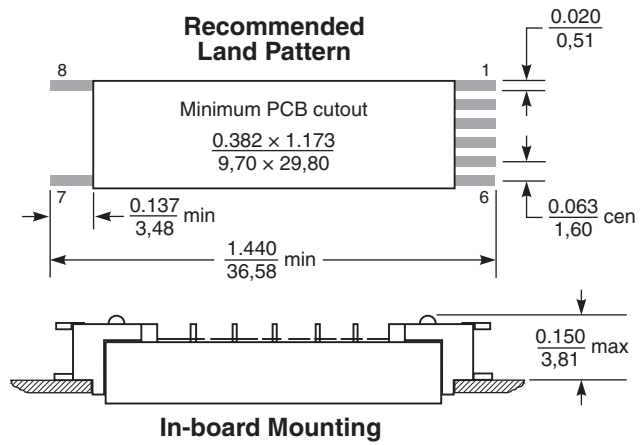
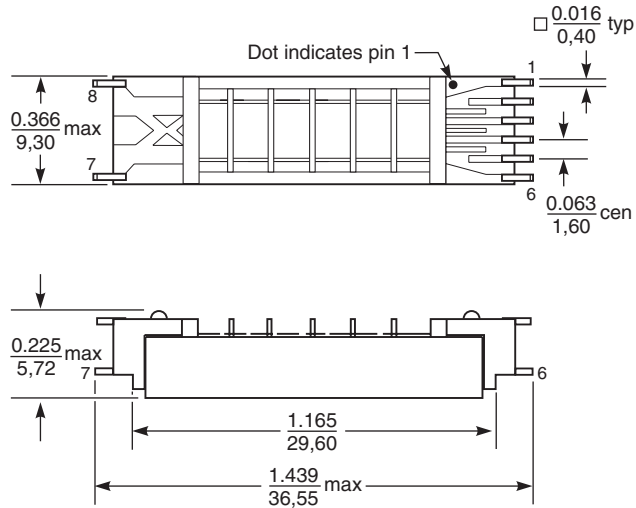
US +1-847-639-6400 sales@coilcraft.com
UK +44-1236-730595 sales@coilcraft-europe.com
Taiwan +886-2-2264 3646 sales@coilcraft.com.tw
China +86-21-6218 8074 sales@coilcraft.com.cn
Singapore + 65-6484 8412 sales@coilcraft.com.sg

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Package 5 – In-board mounting



Weight: 3.8 – 4.0 g

Terminations: Tin-silver over tin over copper over copper-steel

Tape and reel: 1000/13" reel 56 mm tape width

For packaging data see Tape and Reel Specifications section.



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

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