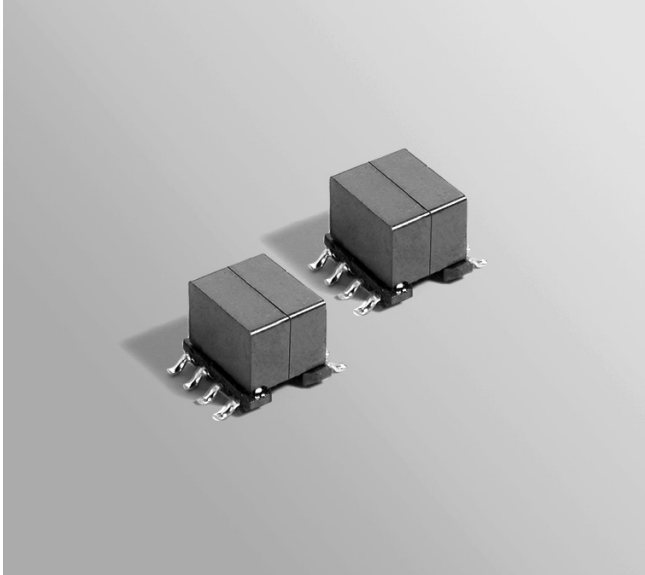




4 W Forward Mode Transformers



- Designed for forward topology operating at 250 kHz
- Five outputs from 3.3 V to 15 V; 9 – 18 V input
- 1500 Vrms isolation from primary and aux to the secondary
- Specified by **National Semiconductor** for its LM5015 Two-Switch Forward Regulator

Core material Ferrite

Terminations RoHS tin-silver over tin over nickel over phos bronze. Other terminations available at additional cost.

Weight 2.0 – 2.1g

Ambient temperature –40°C to +85°C

Storage temperature Component: –40°C to +85°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 350 per 13" reel Plastic tape: 32 mm wide, 0.42 mm thick, 20 mm pocket spacing, 9.16 mm pocket depth

PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf.

Part number ¹	Inductance ² nom (µH)	DCR max (mOhms) ³			Leakage inductance ⁴ max (µH)	Input voltage range (V)	Turns ratio ⁵		Output ⁶
		pri	sec	aux			pri : sec	pri : aux	
FCT1-33K2SL_	120	48	53	720	0.195	9 – 18	1 : 1.0	1 : 2.8	3.3 V, 1.2 A
FCT1-50K2SL_	120	48	88	735	0.205	9 – 18	1 : 1.4	1 : 2.8	5 V, 0.8 A
FCT1-90K2SL_	120	48	218	745	0.165	9 – 18	1 : 2.3	1 : 2.8	9 V, 0.44 A
FCT1-120K2SL_	120	48	420	705	0.170	9 – 18	1 : 3.0	1 : 2.8	12 V, 0.33 A
FCT1-150K2SL_	120	48	532	732	0.215	9 – 18	1 : 3.7	1 : 2.8	15 V, 0.27 A

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

FCT1-50K2SLD

Packaging: **D** = 13" machine ready reel. EIA-481 embossed plastic tape (350 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 at 250 kHz, 0.2 Vrms, 0 Adc.

3. DCR for the secondary is measured with the windings connected in parallel.

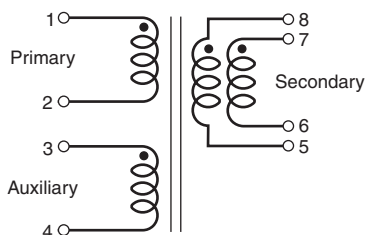
4. Leakage inductance is for the primary and is measured with the secondary shorted.

5. Turns ratio is with the secondary windings connected in parallel.

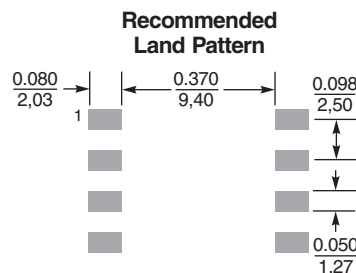
6. Output is with the secondary windings connected in parallel. Auxiliary winding output is 10 V, 20 mA.

7. Electrical specifications at 25°C.

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



Secondary winding 7 – 6 not used on FCT1-120K2SL and FCT1-150K2SL. For other parts, secondary windings to be connected in parallel on PC board.



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

