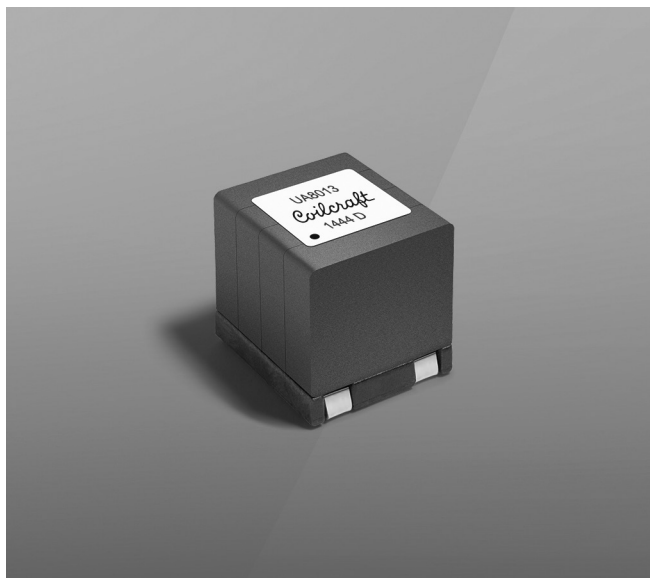


**NEW!**

# Dual Inductor for Class-D UA801x-AL



- Developed for Texas Instruments TPA3220, TPA3244 & TPA3245
- Dual inductors for use in Class-D output filters
- A single shielded package contains both coils.
- Very low coupling coefficient ( $k < 0.001$ ) between the two inductors
- AEC-200 Grade 1 qualified ( $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  ambient)
- Designed for 100 Watts into 4 Ohm load

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver (96.5/3.5) over copper.

**Weight** 12.3 g

**Ambient temperature**  $-40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  with Irms ( $40^{\circ}\text{C}$ ) current

**Maximum part temperature**  $+165^{\circ}\text{C}$  (Ambient + temperature rise)

**Storage temperature** Component:  $-40^{\circ}\text{C}$  to  $+165^{\circ}\text{C}$ .

Tape and reel packaging:  $-40^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$

**Resistance to soldering heat** Max three 40 second reflows at  $+260^{\circ}\text{C}$ , parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at  $<30^{\circ}\text{C}$  / 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

**Tape and reel packaging** 150/13" reel Plastic tape: 32 mm wide, 0.5 mm thick, 24 mm pocket spacing, 16.1 mm pocket depth

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>		Inductance <sup>2</sup> $\pm 10\%$ ( $\mu\text{H}$ )	DCR max <sup>3</sup> (mOhms)	SRF typ <sup>4</sup> (MHz)	Isat (A) <sup>5</sup>			Irms (A) <sup>6</sup>	
					10% drop	20% drop	30% drop	20°C rise	40°C rise
UA8013-AL_	L1	7.0	6.6	40	12.0	12.5	13.2	6.5	9.0
	L2	7.0	6.6	40	12.0	12.5	13.2		
UA8014-AL_	L1	10.0	6.6	28	8.7	9.1	9.4	6.5	9.0
	L2	10.0	6.6	28	8.7	9.1	9.4		

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

**UA8013-ALD**

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

**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 measured at 100 kHz, 1.0 Vrms, 0 Adc using an Agilent/HP 4284A impedance analyzer.

3. DCR is for each winding, measured on a micro-ohmmeter.

4. SRF measured using Agilent/HP 8753D network analyzer.

5. DC current (typical) at which the inductance drops the specified amount from its value without current.

6. Current applied to windings at the same time that causes the specified temperature rise from  $25^{\circ}\text{C}$  ambient.

7. Electrical specifications at  $25^{\circ}\text{C}$ .

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



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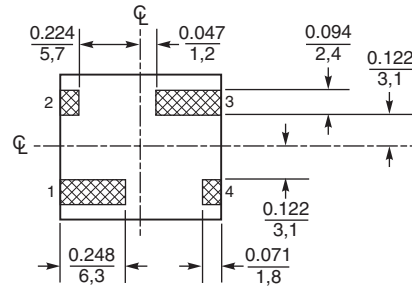
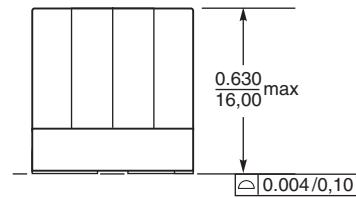
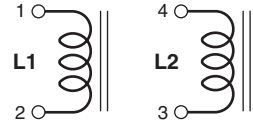
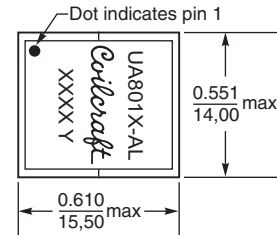
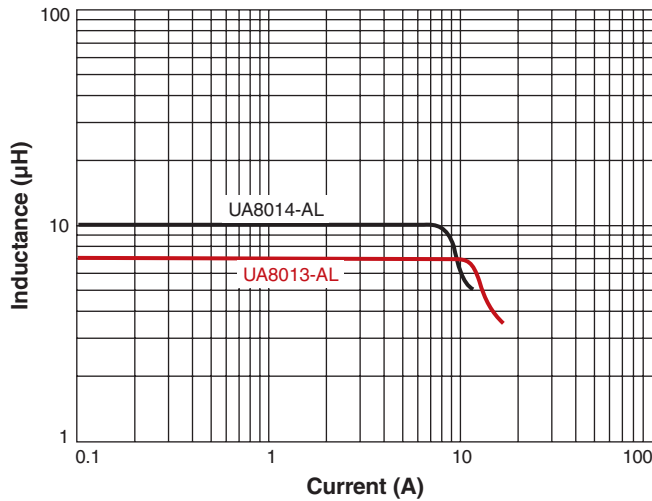
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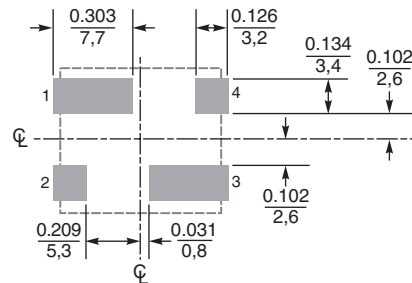
**NEW!**

# Class-D Dual Inductor – UA801x-AL

## L vs Current



### Recommended Land Pattern



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