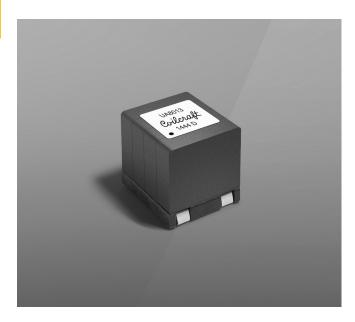




# Dual Inductor for Class-D UA801x-AL



- 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</li>
- AEC-200 Grade 1 qualified (-40°C to +125°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  $\rm g$ 

Ambient temperature  $-40^{\circ}$ C to  $+125^{\circ}$ C with Irms ( $40^{\circ}$ C) current Maximum part temperature  $+165^{\circ}$ C (Ambient + temperature rise) Storage temperature Component:  $-40^{\circ}$ C to  $+165^{\circ}$ C. Tape and reel packaging:  $-40^{\circ}$ C to  $+80^{\circ}$ 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 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		Inductance <sup>2</sup>	DCR max <sup>3</sup> (mOhms)	SRF typ <sup>4</sup> (MHz)	<b>Isat (A)</b> <sup>5</sup>			Irms (A) <sup>6</sup>	
number <sup>1</sup>		±10% (µH)			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°C ambient.
- 7. Electrical specifications at 25°C.

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





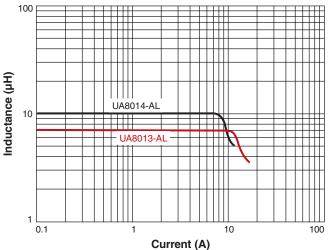


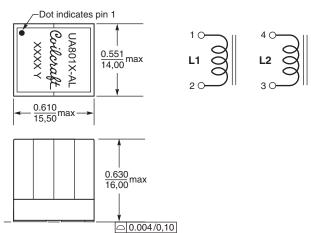
## Class-D Dual Inductor - UA801x-AL

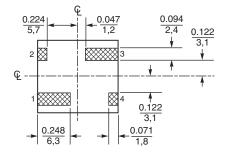




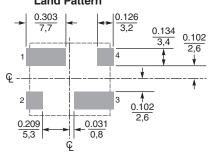
### L vs Current







#### Recommended **Land Pattern**



Dimensions are in inches



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