

## TXL15A RANGE OF MINIATURE HIGH CURRENT RADIAL INDUCTORS



### **TECHNICAL DESCRIPTION:**

**Primeworld** TXL15--- range of high current radial inductors are manufactured in one mechanical outline, providing a wide range of inductance values with peak energy storage, ( $1/2 LI^2$ ), capability of up to 275uJ.

Windings are enamelled copper wire, wound on a 5x15mm rod core. Tinned lead-outs are held in place with black heat shrink sleeve around the bobbin core.

The TXL15A range is designed for use in power supplies, dc/dc converters, inverters and smoothing choke applications.

### **RATINGS AND CHARACTERISTICS:**

**Maximum Working Voltage:** 250V ac rms., 400V dc

**Rated current:** See tables for TXL15A-- range

**Inductance:** See tables for TXL15A-- range

**DC Resistance:** See tables for TXL15A-- range

**Climatic category:** 25/105/56

**Maximum temperature range:**

Operating: -25 to +105 °C

Storage: -55 to 125 °C

**Mass:**

8g max

**Vibration:** Frequency sweep of 10Hz to 55Hz with 0.35mm displacement for 6 hours. IEC68-2-6 Test Fc

**Requirement:** No visible damage, Inductance +/- 10%

**Bump:** 1000 bumps of each 16ms with acceleration of 98m/s. IEC68-2-29 Test Eb

**Requirement:** No visible damage, Inductance +/- 10%.

**Resistance to soldering heat:** Solder bath for 3s @ 350 °C, 6mm from body IEC68-2-20A Method 1B

**Solderability:** Maximum soldering time, 2.5s @ 235 °C Solder globule test, IEC 68-2-20Ta.

**Robustness of terminations:**

1Kg (10N) IEC 68-2-21 Test Ua Tensile  
500g (5N) IEC 68-2-21 Test Ub Bending

**Requirement:** No visible damage to the body. No deviation in nominal inductance and dc resistance.

### **INSPECTION REQUIREMENTS**

**Visual inspection: Random Sample**

**Failure Criteria:**

- |         |  |
|---------|--|
| Marking | - Non-legible marking.<br>- Missing or double marking.   |
| Package | - Dimensions out of tolerance.<br>- Broken or damaged plastic.<br>- Contamination by oil, flux, etc.<br>- Voids, holes or cracks.  |
| Leads   | - Broken, cracked or loose leads.<br>- More than 10% non-plated surface in the soldering area.<br>- Blistering, peeling or other surface defects exposing base material.<br>- Contamination by oil, flux, etc. |
| Packing | - Inconsistent mechanical strength.<br>- Incorrect labelling and sealing.<br>- Incorrect quantity and type.  |

**Inductance: 100%**

**Limits:**

+/- 33% for L < 2u2H @ 100KHz, 0.1V ac rms.  
+/- 20% for L < 10uH @ 100KHz, 0.1V ac rms.  
+/- 10% for L > 10uH @ 10KHz, 0.1V ac rms.

**DC resistance: 100%**

**Limits:** +5% -10%.

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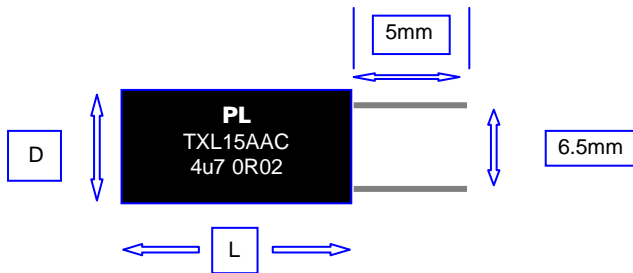
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**TXL15A-- RANGE:**

	NOMINAL	DC	CONTINUOUS	DC	Lead Dia.
CODE	INDUCTANCE	RESISTANCE	DC CURRENT	CURRENT (A)	d
SIZE...P--	(uH) @ 1KHz	(OHM) MAX	(A) @ 40 ° C	@ 90% Lnom	(mm) MAX
TXL15AAA	2.2	0.0055	10	16	1.0
TXL15AAB	3.3	0.01	7	13	0.8
TXL15AAC	4.7	0.02	5	11	0.71
TXL15AAD	6.8	0.03	4	9	0.56
TXL15AAE	10	0.055	3	7.4	0.45
TXL15AAF	15	0.110	2.2	6	0.355
TXL15AAG	22	0.16	1.8	5	0.315

**Mechanical Data**



SIZE	L	D
A	16	8

**ALL DIMENSIONS ARE IN mm**

**LEADOUT TOLERANCES +/-20%, L & D max.**

*Specifications and information contained in this data sheet are intended for guidance only. The Company's policy is one of continuous improvement and the right to change materials, designs, dimensions and descriptive matter, etc. at any time without notice is reserved.*

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