

TXL14A RANGE OF MINIATURE HIGH CURRENT AXIAL INDUCTORS



PL
TXL14AAC
4u7 0R02

TECHNICAL DESCRIPTION:

Primeworld TXL14--- range of high current axial 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 TXL14A 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 TXL14A-- range

Inductance: See tables for TXL14A-- range

DC Resistance: See tables for TXL14A-- 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:

500g (5N) 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.
- Missing or double marking. |
| Package | - Dimensions out of tolerance.
- Broken or damaged plastic.
- Contamination by oil, flux, etc.
- Voids, holes or cracks. |
| Leads | - Broken, cracked or loose leads.
- More than 10% non-plated surface in the soldering area.
- Blistering, peeling or other surface defects exposing base material.
- Contamination by oil, flux, etc. |
| Packing | - Inconsistent mechanical strength.
- Incorrect labelling and sealing.
- Incorrect quantity and type. |

Inductance: 100%

Limits:

+/- 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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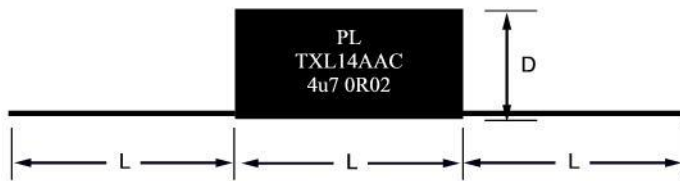
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TXL14A-- RANGE:

	NOMINAL	DC	CONTINUOUS	DC	Lead Dia.
CODE	INDUCTANCE	RESISITANCE	DC CURRENT	CURRENT (A)	d
SIZE...P--	(uH) @ 1KHz	(OHM) MAX	(A) @ 40 ° C	@ 90% Lnom	(mm) MAX
TXL14AAA	2.2	0.0055	10	16	1.0
TXL14AAB	3.3	0.01	7	13	0.8
TXL14AAC	4.7	0.02	5	11	0.71
TXL14AAD	6.8	0.03	4	9	0.56
TXL14AAE	10	0.055	3	7.4	0.45
TXL14AAF	15	0.110	2.2	6	0.355
TXL14AAG	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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