

PRIMEWORLD LIMITED

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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