

TXL04A RANGE OF COMMON MODE TOROIDAL INDUCTORS



TECHNICAL DESCRIPTION:

Primeworld TXL04A range of common mode toroidal inductors is manufactured in one mechanical outline (A), providing a range of inductance values at different current levels for common mode noise suppression applications.

Windings are enamelled copper wire, wound on a 25mm diameter, high permeability ferrite toroidal core. Wound core is secured on to a flame retardant glass reinforced PET (*Rynite FR530*) base with a non-releasable tie. The base has an industrial standard foot-print, with four asymmetric tin plated terminal pins to which the windings are terminated using SnCu solder. Also, at the top of the assembly, the two windings are separated by a non-releasable tie.

The TXL04A range is designed for use in power supplies, dc/dc converters and inverters, EMI/RFI noise suppression, and is particularly suitable for mains input filter applications.

RATINGS AND CHARACTERISTICS:

Maximum Working Voltage: 275V ac rms., 500V dc

Insulation Test Voltage: 2500V ac rms, 2sec, winding1/winding2

Rated current: See tables for TXL04--- range

Inductance: See tables for TXL04--- range

DC Resistance: See tables for TXL04--- range

Climatic category: 25/105/56

Maximum temperature range: Operating: -25 to +105 °C

Storage: -55 to 125 °C

Mass:

Size A: 25g 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 10s @ 260 °C, 6mm from body IEC68-2-20A Method 1B

Solderability: Maximum soldering time, 2.5s @ 260 °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. - 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:** +80%, -25%

DC resistance: 100% **Limits:** +5% -10%.

Insulation Test Voltage: 100% **Limits:** > 4000V DC

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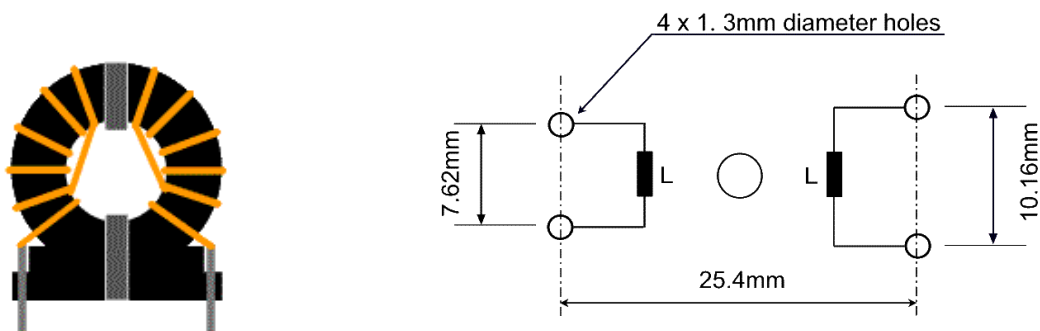
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TXL04-- RANGE:

	NOMINAL	LEAKAGE	DC	DC
CODE	INDUCTANCE	INDUCTANCE	RESISTANCE	CURRENT (A)
SIZE...A--	(mH) @ 1KHz	(uH) typ	(mΩ) MAX	@ 70 ° C
TXL04AAA	18.0	150	660	1
TXL04AAB	7.5	58	165	2
TXL04AAC	3.2	28	72	3
TXL04AAD	2.4	20	41	4
TXL04AAE	1.4	12	20	6
TXL04AAF	0.75	8	10	8
TXL04ABC	3.2	26	52	3.6
TXL04ABH	0.33	4	3.6	14
TXL04ABE	1.4*	10	10	8
TXL04ACC**	2.2	20	24	6.5
TXL04ABB**	9.6	58	165	2

* Inductance +60% -40% **Provisional data

Mechanical Data



Mounting detail - top (component side) view

SIZE	H	W	D
A	32	31	16

Pin dimensions: 1.2mm x 0.4mm Pin length below base: 5mm TOLERANCES +/- 10%

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