

## Toroid Line Chokes (TLC)

FASTRON's Toroid Line Chokes offer a wide range of Induction values from 10 $\mu$ H to 1mH. Over seven series, a current from 0.1A up to 10A is available. They come in vertical mounted versions for THT assembly. The copper wire current density is around 6.5A/qmm. The core material is an iron-powder mixture giving high saturation currents. Customized lead-forming is available upon request .

**Applications** Applied in Power Supplies, switched mode Power Supplies, Output- chokes, Control Units, EMI/ RFI- Suppression Chokes, Line-Filters.

### Technical Data

L – Value (rated inductance)	Measured with HP 4194A Impedance / Gain-phase Analyzer or equivalent at frequency $f_L$
DCR (max)	Measured at 25 °C
Rated DC Current	$I_R$ , based on the Inductance Losses (Lo/L Load) where the Inductance decrease 30% max.
DC Isolation	Winding to core 1000Volt
Operating Temperature	-55 to 115°C (including component self-heating)
Leads	Leadfree tinned, RoHS
Recommended soldering method	Wave
Moisture Sensitivity Levels (MSL)	MSL Level 1, indicating unlimited floor life at $\leq 30^\circ\text{C}$ / 85% relative humidity
Solderability	Using lead free solder (Sn 99.9) at $260^\circ\text{C} \pm 5^\circ\text{C}$ for $5 \pm 0.5$ seconds, min 90% solder coverage of metallization Standard: IEC 68-2-20 (Ta)
Resistance to Soldering Heat	Resistant to $260^\circ\text{C} \pm 5^\circ\text{C}$ for $10 \pm 1$ seconds Standard: IEC 68-2-20 (Tb)
Resistance to Solvent	Resistant to Isopropyl alcohol for $5 \pm 0.5$ minutes at $23^\circ\text{C} \pm 5^\circ\text{C}$ Standard: IEC 68-2-45
Climatic Test	Defined by the following standards IEC 68-2-1 for Cold test: $-55^\circ\text{C}$ for 96 hours IEC 68-2-2 for Dry heat test: $+125^\circ\text{C}$ for 96 hours IEC 60068-2-78 for Humidity test: $40^\circ\text{C}$ at RH 95% for 4 days
Thermal Shock Test	Temperature cycle : $-55^\circ\text{C}$ to $+125^\circ\text{C}$ to $-55^\circ\text{C}$ Max/Min temperature duration: 15 minutes Temperature transition duration: 5 minutes Cycles: 25 Standard: MIL-STD-202G

**Ordering Code** Example: **TLC/10A-102M-00**

**TLC/10A** - **102** - **M** - **00**  
 (Model/Current,  $I_R$ ) (Inductance Value) (Tolerance) (Packing Code)

Core Type - Iron Dust  
 Tolerances - M (20%)  
 Packing Code - 00 (Loose in Box)