

# Toroidal Transformer – Q3903-AL



- Specified by ON Semiconductor for use with their NCP1605 PFC Controller. Referenced as X25, pulse transformer on evaluation board NCP1605FORWGEVB and Application Note AND8292.
- Recommended by Texas Instruments for use with their UC3875 Phase Shift Resonant Controller.
- Three 1:1 windings
- 500 Vrms, one minute winding-to-winding isolation.

**Core material** Ferrite

**Terminations** RoHS compliant tin-silver over tin over nickel over brass. Other terminations available at additional cost.

**Weight** 4.3 g

**Ambient temperature** -40°C to +85°C

**Storage temperature** Component: -40°C to +85°C.  
Tray packaging: -40°C to +80°C

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**Failures in Time (FIT) / Mean Time Between Failures (MTBF)**

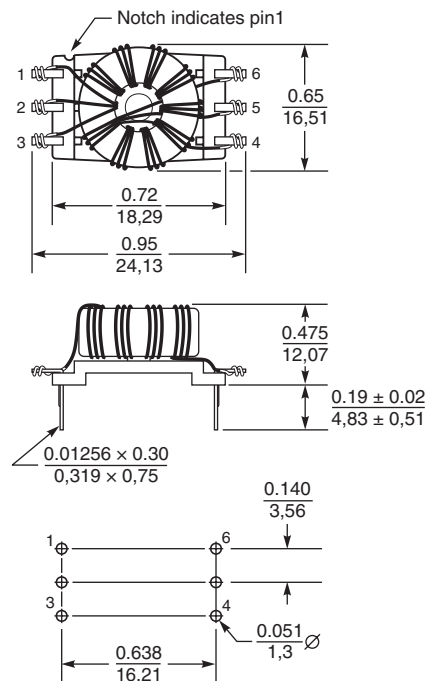
38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332

**Packaging** 49 per tray

**PCB washing** Tested with pure water or alcohol only. For other solvents, see Doc787\_PCB\_Washing.pdf

Part number	Inductance <sup>1</sup> min (µH)	DCR max <sup>2</sup> (Ohms)	Inter-winding isolation (Vrms)
Q3903-AL	210	0.090	500

1. Inductance measured between pins 1 and 6, at 15.75 kHz, 0.015 Vrms, 0 Adc using an Agilent/HP 4192A impedance analyzer.
2. DCR is per winding, measured on Cambridge Technology micro-ohmmeter or equivalent.
3. Electrical specifications at 25°C.



## Recommended PC Board Layout

Dimensions are in  $\frac{\text{inches}}{\text{mm}}$