Bauteilname/Part Name:	***5808 Resonant Inductor PQ40/40 R02***			
Artikelnummer/Part Number:	***-***			
Author: Autor:	*Scherf, Marko*	Date of last revision: Datum der letzten Revision:	*07.09.2018*	*MS*
Release: Freigabe:		Date: Datum:		
Revision:	*R02*			
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Related documents:				
Mitgeltende Dokumente:				

Document History/ Dokumentenhistorie:			
Revision (R) Draft (D)	Modification / Änderung	Date Datum	Author Autor
D00	***5808 Resonant Inductor PQ40/40 D01***	*20.04.2018*	*MS*
R01	***5808 Resonant Inductor PQ40/40 R01***	*03.07.2018*	*MS*
R02	***5808 Resonant Inductor PQ40/40 R02*** - various minor changes	*07.09.2018*	*MS*

1. Image of an example

2. Material

Magnetic Core: PQ40/40, air gap: appr. 6mm (total)

- Air gap both at inner and outer legs (50/50, ungrinded cores)
- Please adjust air gap according to inductance tolerance!

Core material:	PC47 (TDK)
	alternatively:
	TDK PC95
	EPCOS N95
	SAMWHA PL-15
	TDG TP4D
	DMEGC DMR47, DMR95
	Ferriwo FW95
Conductor material:	HF litz wire 840 x 0.071mm
Coil form:	vertic., 12 pins, EPCOS B65884E0012D001 or eq.
	polyester film 25.4mm x 50µm
Isolation material:	tube

3. Isolation Requirements

Creepage distance:	-
Temperature class IEC85:	class B
Approval of the materials as „UL recognized component“:	yes
Inflammability of plastic parts:	UL-V1 or better
Comparative Tracking Index (CTI):	group III or better

4. Windings/ Construction

4.1. Winding table:

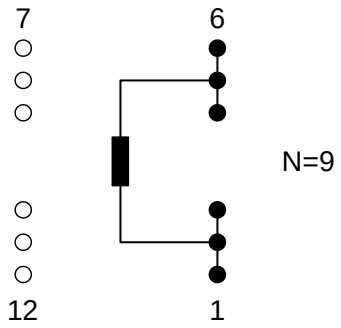
Pin		Number of turns	L [µH]	Conductor	Winding	Comment
Start	End					
TBD layers of insulation foil (pad) ➔ N1 in the middle of available height!						
1,2,3	4,5,6	9	7.5	HF litz wire 840 x 0.071mm	N1	Single layer (single turn overlap is possible)
Cover Insulation: 2 layers polyester film 25.4mm x 50µm						

Ends must be tubed!

- Especially upper end (over full length, where crossing other turns)!

4.2. Sketch of Windings: -

4.3. Sketch of Pin-Layout:



Parts must be impregnated!

5. Checks

Inductance:	yes	[@10kHz], Tolerance: +/-5%
Turns ratio:	-	
Test voltage:	-	