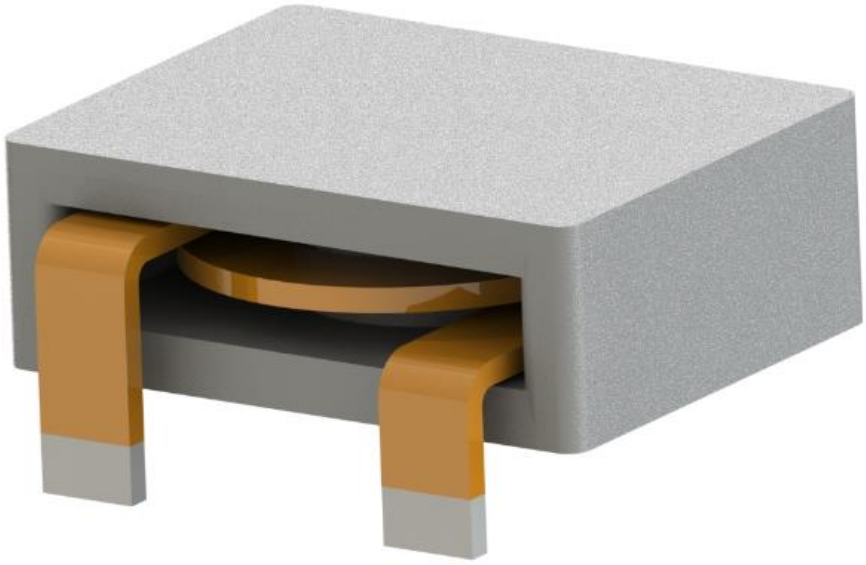
	Customer	Customer Ref.	Description			
PREMO	**D0240**	A2C04321900	**DCDC choke 1.8µH**			
	Project Ref.	Prototye Ref.	Ordering Code	Date	Edition	Page
	X-D0240-136		**X-D0240-136**	**09/03/20**	**9**	**1/7**

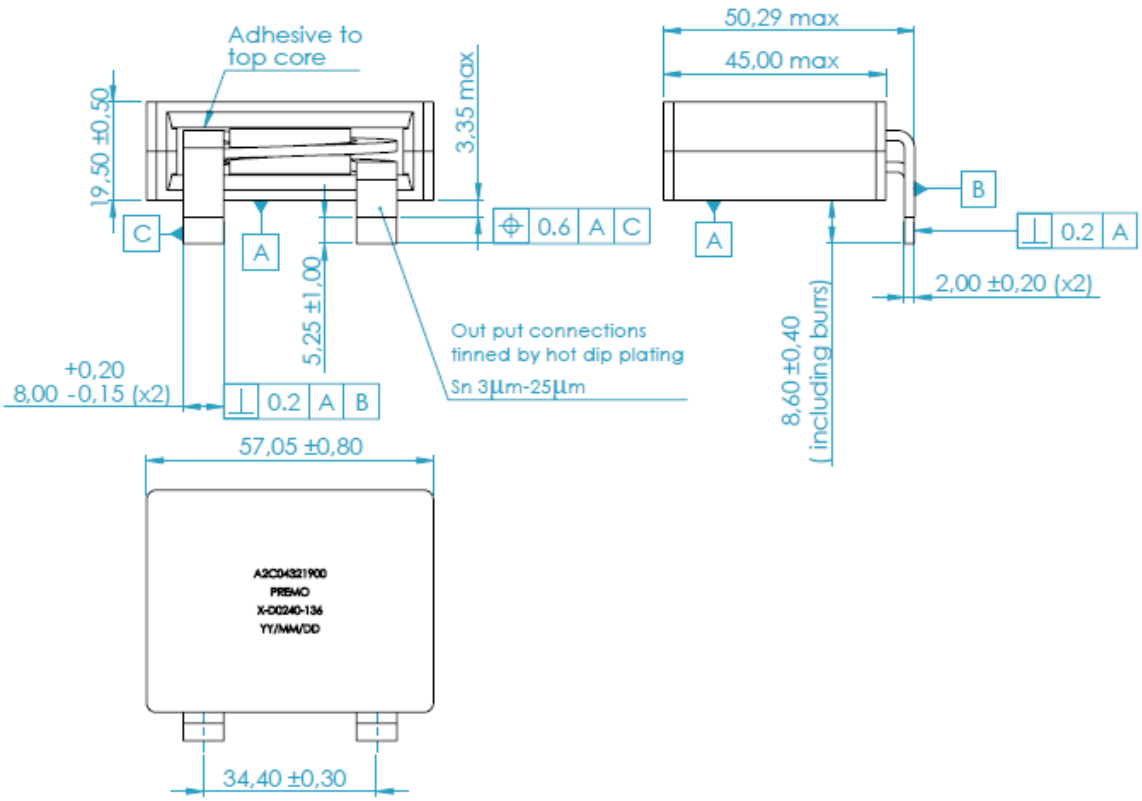


DCDC Choke 1.8µH

Made by (R&D Engineer)	Approved by (R&D Manager)	Approved by (Quality Engineer)
Date: 09/03/2020	Date: 09/03/2020	Date: 09/03/2020
Signature: Marina Arcos	Signature: R. Rodriguez	Signature: PREMO, S.L. Av. Severo Ochoa, 47 - PTA - 29590 Campanillas (Málaga)

DIMENSIONS : mm	TECHNICAL SPECIFICATION	RoHS Compliant

1- Dimensions (mm)



Notes :

- Tolerances according to ISO 2768-1mif not already indicated on the drawing.

- Weight approximately 220g.

- Tin thickness 3-25µm (section 8 x 2mm) except in the cutting area.

2- Electrical Parameters

2.1 – Technical specifications

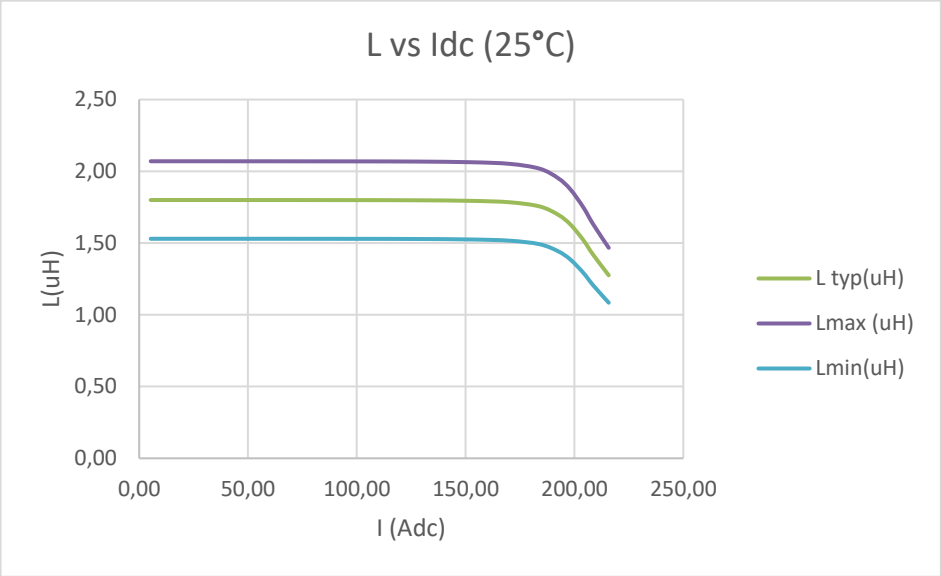
TOPOLOGY	DCDC Choke
MAX OPERATING VOLTAGE	150Vdc
CONTINUOS RMS CURRENT (≤ 105 ºC)	140 A
PEAK CURRENT (10s, duty 1/6, ≤ 25 ºC)	175 A
OPERATING TEMPERATURE	-40ºC to+150ºC
STORAGE TEMPERATURE	-40ºC to +105 ºC
AMBIENT TEMPERATURE	-40ºC to +105 ºC
ESTIMATED TOTAL LOSES (100ºC)	
Copper loses DC (140 Arms)	7 W
Core loses (Iripple=30App @200kHz)	2 W
Total loses	9 W

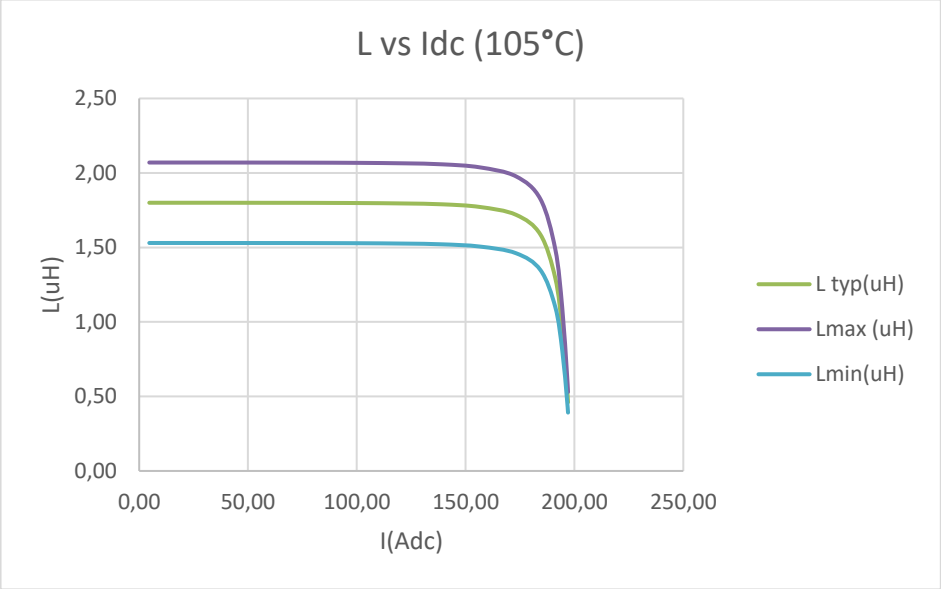
2.2 – Parameters tested

INDUCTANCE @ 0A	1.8µH +/-15%
DC RESISTANCE @25º C	0,27 mΩ typ +/- 14%
INSULATION RESISTANCE *	
WINDING TO CORE	10 MΩ min, 200 Vac/50 Hz, 2s (serial test)
DIELECTRIC STRENGTH (1) *	
WINDING TO CORE	200Vac 50Hz, 2s, 3 mA

Notes:
- Inductance measured at 200 kHz / 1 Vac
- (1) 1 min for qualification / 2 sec for mass production
- Critical characteristics are indicated by red asterisk (*)

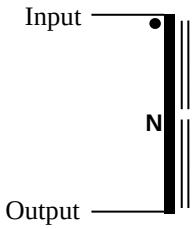
2.3- Typical behavior





-Those are estimated curves to be confirm with prototypes

3- Electrical diagram



4- Inductor raw material

CORE	MnZn Power Ferrite – High Bsat with gap
WIRES	Enameled copper flat wire 8mm x 4mm Class H (180°C) Grad 2 / UL
ADHESIVE	Epoxy adhesive

5- Marking

Ink marking on top of the component with the following information:

A2C04321900
PREMO
X-D0240-136
YY/MM/DD

YY : Year
MM : Month
DD : Day

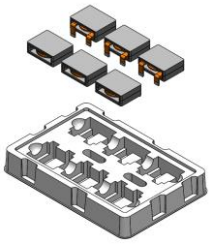
6- Additional requirements

- All materials according to UL94-V0
- Product designed for AEC Q 200 / A2C00052910AAAA
- Cleanliness TST N 002 02.21 001 Product cleanliness power electronic
- Adhesion test according to TST N 001 16.02 / A2C04321900
- High temperature test 2000h @155ºC

7- Packaging

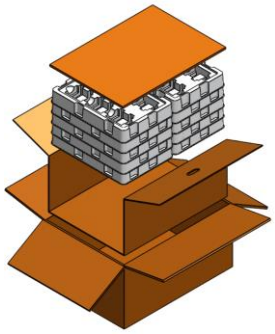
7.1- Tray

Plastic tray 275x190mm: 6 parts per tray



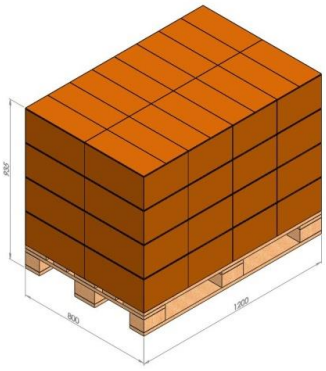
7.2-Box

Trays placed in 300x400x200 carton boxes – 10 trays per box
48 parts per box, less than 12kg



7.3- Pallets

1536 parts in a European pallet
Max pallet dimensions (L x W x H): 1200 x 800 x 1600



8- Edition Control

Edition	Changed by	Date	Change description
1.0	M. Arcos	11/09/2019	According to edition 0.2 . Updated mechanical drawing. Added insulation resistance test. Updated critical characteristics and spec template.
2.0	M. Arcos	30/09/19	Update design acording to CIR received 26/09/19
3.0	M. Arcos	02/10/19	Update graphs
4.0	M. Arcos	04/11/19	Update mistake from 200 Vdc to 200Vac in dielèctric strength winding to core
5.0	M. Arcos	10/12/19	Update Rdc tolerance from 15% to 14% and Conti part number
6.0	M. Arcos	11/12/19	Add note in dimension drawing according to adhesive wire to top core and a note of not tin in the cutting area of the wire
7.0	M. Arcos	20/12/19	Add cleanliness, adhesion test requirement.and ink marking. Add hight temperature test.
8.0	M. Arcos	13/01/20	Update graph temperature
9.0	M. Arcos	09/03/2020	Update a typo mistake in the Edition control table(Ed5)