

The history of revision change for the specification

Document	REV.	Modified date	Description
CYNVF-172-001	A0	2017.2.23	New Approval
CYNVF-172-001	A1	2017.3.13	1. Feb. -> Mar. 2. Date Code Year Code: 2017 = 17 -> 2017 = 7 Taping No. Serial number : 01 ~ ZZ -> 001 ~ ZZZ
CYNVF-172-001	A2	2017.3.22	Remove : (L vs Freq. @25°C)
CYNVF-172-001	A3	2017.6.8	1. Mar. -> Jun. 2. Add Note5 : Cleaning Process Note
CYNVF-172-001	A4	2017.8.14	1. Jun. -> Aug. 2. Update the figure of outline Dimensions
CYNVF-172-001	A5	2017.11.30	1. Aug. -> Nov. 2. Add symbol ◇ in Specifications
CYNVF-172-001	A6	2018.10.03	1. Add notice "AEC-Q200 qualified" in Features 2. Add "AEC-Q200" logo on page 1 3. Remove notice "Preliminary specification" 4. Nov., 2017 -> Oct., 2018 5. Year code 2017 = 7 -> 2018 = 8 6. Remove Page 1 "The history of revision change for the specification" 7. Remove spec of 110 & 220
CYNVF-172-001	A7	2019.4.17	1. Oct., 2018 -> Apr., 2019 2. Add "Bifilar winding" on feature 3. Year code 2018 = 8 -> 2019 = 9
CYNVF-172-001	A8	2019.6.27	1. Apr. -> Jun. 2. Add Tape Direction
CYNVF-172-001	A9	2021.3.8	1. Jun., 2019 -> Mar., 2021 2. Add No polarity on Schematic 3. Year code 2019 = 9 -> 2021 = 1
CYNVF-172-001	B0	2023.09.14	1. Mar., 2021 -> Sep., 2023 2. Year code 2021 = 1 -> 2023 = 3 3. Add spec of 220
CYNVF-172-001	B1	2023.12.07	1. Sep. -> Dec. 2. Add Specifications Note6: We do not recommend the use of conformal coating, please discuss with us if you have this requirement.

### Wire-wound Common Mode Choke VFB4532 Series

#### ■ Features

Operating temperature -40°C~150°C  
 Suitable for lead-free reflow soldering  
 Compliance with RoHS and Halogen Free  
 Bifilar winding  
 AEC-Q200 qualified

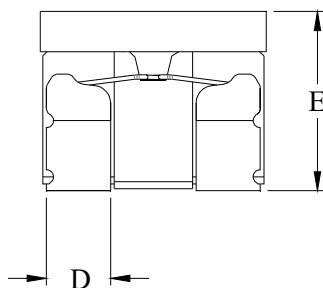
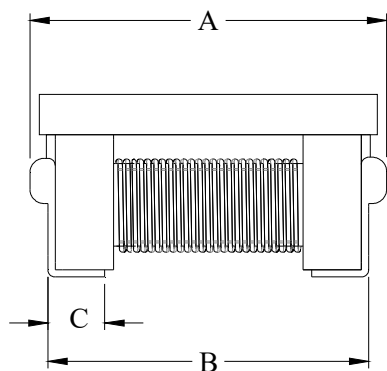
#### ■ Application

Used radiation noise suppression for automotive CAN-BUS / Flex Ray systems  
 Used for Industrial field bus systems

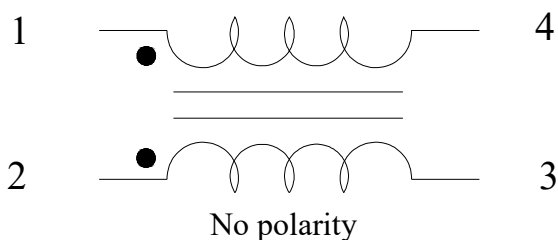
#### ■ Outline Dimensions



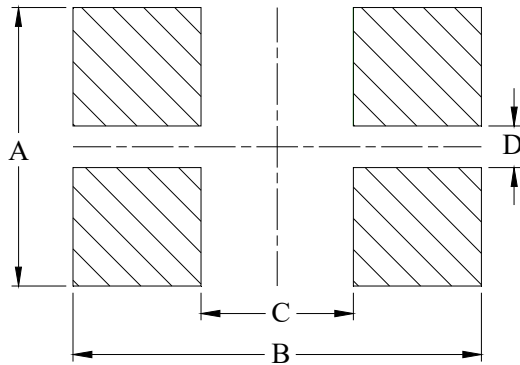
Code	Dimensions (mm)
A	5.2 Max
B	4.5 ± 0.2
C	0.8 ± 0.2
D	0.9 ± 0.2
E	2.6 ± 0.2
F	3.2 ± 0.2



#### ■ Schematic



■ **Recommend Land Pattern Dimensions**



A	4.0
B	5.9
C	2.2
D	0.6

Unit : mm

■ **Marking and Date Code**

(1) **Marking**

The inductor is marked with a 3-digit code

Example -- 51.0 $\mu$ H → 510

(2) **Date Code**

  X        XX        XXX    
 (1)        (2)        (3)

Where (1) Year Code

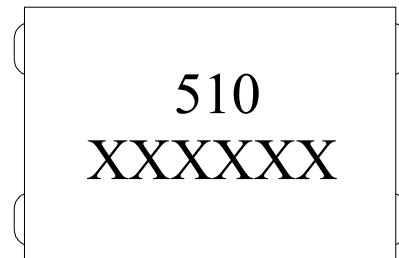
Ex : 2023 = 3

(2) Weekly Code

Serial number : 01 ~ 53

(3) Taping No.

Serial number : 001 ~ ZZZ



### Specifications

Part Number	Common Mode Inductance (μH) Note2 ◇	Stray Inductance (μH) Note2	Common Mode Impedance (Ω) Note3		DCR (Ω) ◇	Rated current (mA)	Rated Voltage (Vdc)	Insulation Resistance (MΩ)
			Typ.	Min.				
VFB4532-220	22.0	0.08	500	1200	1.0	200	80	10
VFB4532-510	51.0	0.14	1000	3000	1.0	200	80	10
VFB4532-101	100.0	0.18	2000	6000	2.0	150	80	10

◇ : Significant Characteristic

\*Inductance Tolerance : -30% / +50%

Note 1. : All test data is referenced to 25°C ambient.

Note 2. : Test Condition: 100KHz, 0.1Vrms

Note 3. : Test Condition: 10MHz, 0.1Vrms

Note 4. : Operating Temperature Range -40°C to + 150°C

Note 5. : Cleaning Process Note

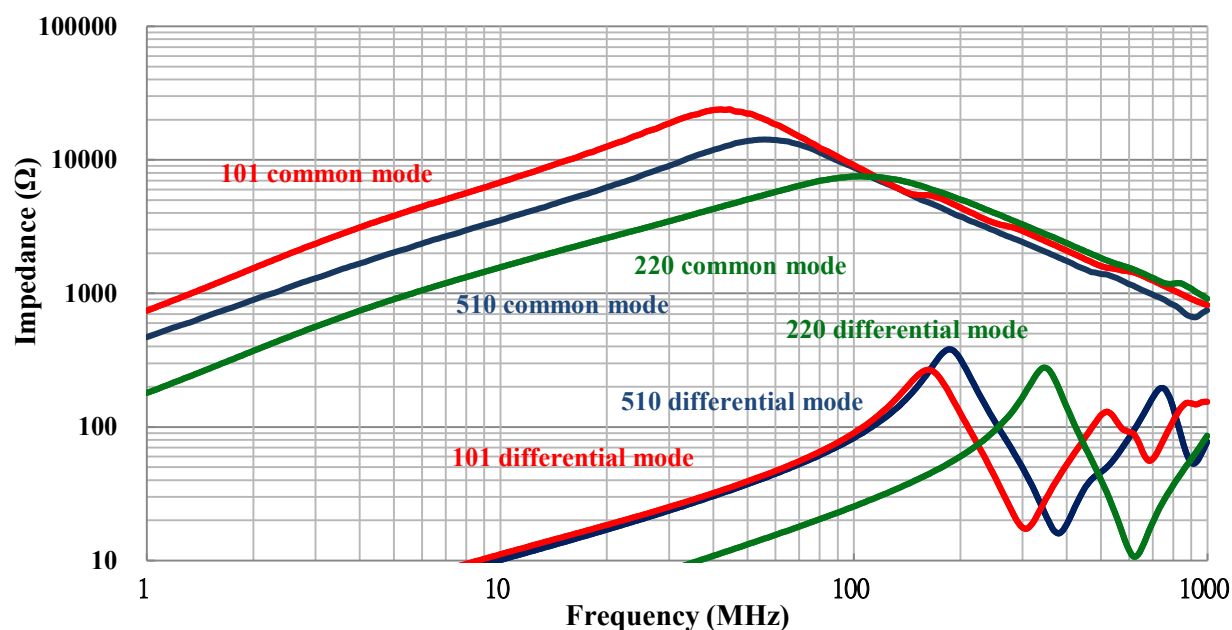
(a) If this power choke is dipped in the cleaning agent, such as toluene, xylene, ketone, and ether system, there is a possibility that the performance decreases greatly

(b) The high power ultrasonic washing may damage the choke body.

(c) Please contact us if you need the cleaning via the above agents or ultrasonic washing.

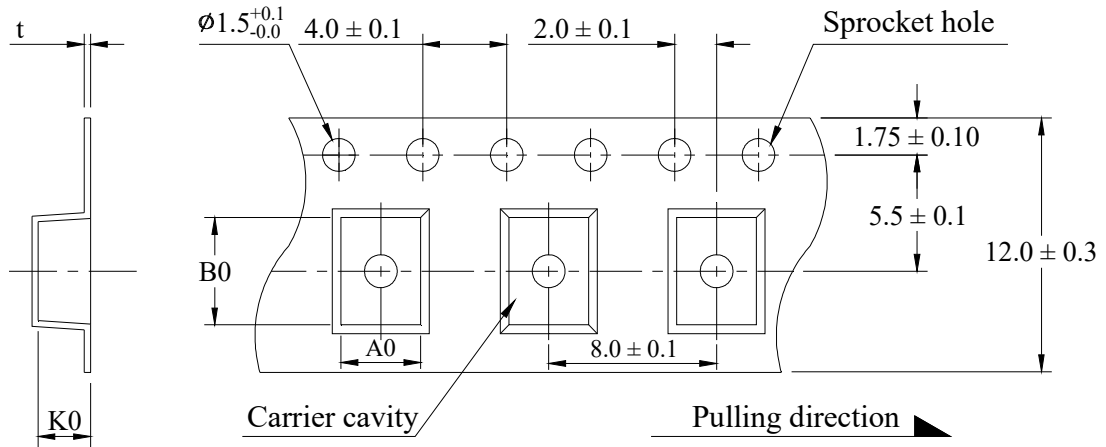
Note 6. : We do not recommend the use of conformal coating, please discuss with us if you have this requirement.

### Impedance VS. Frequency Characteristic



**■ Packaging**

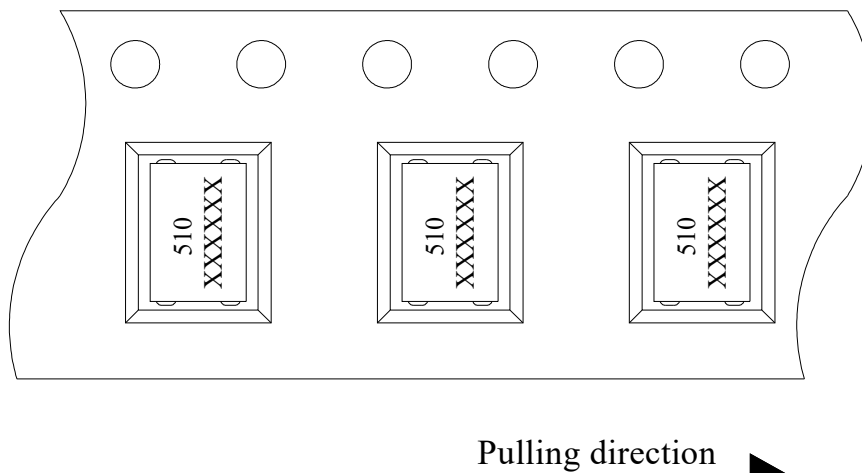
(1) Tape packaging dimensions



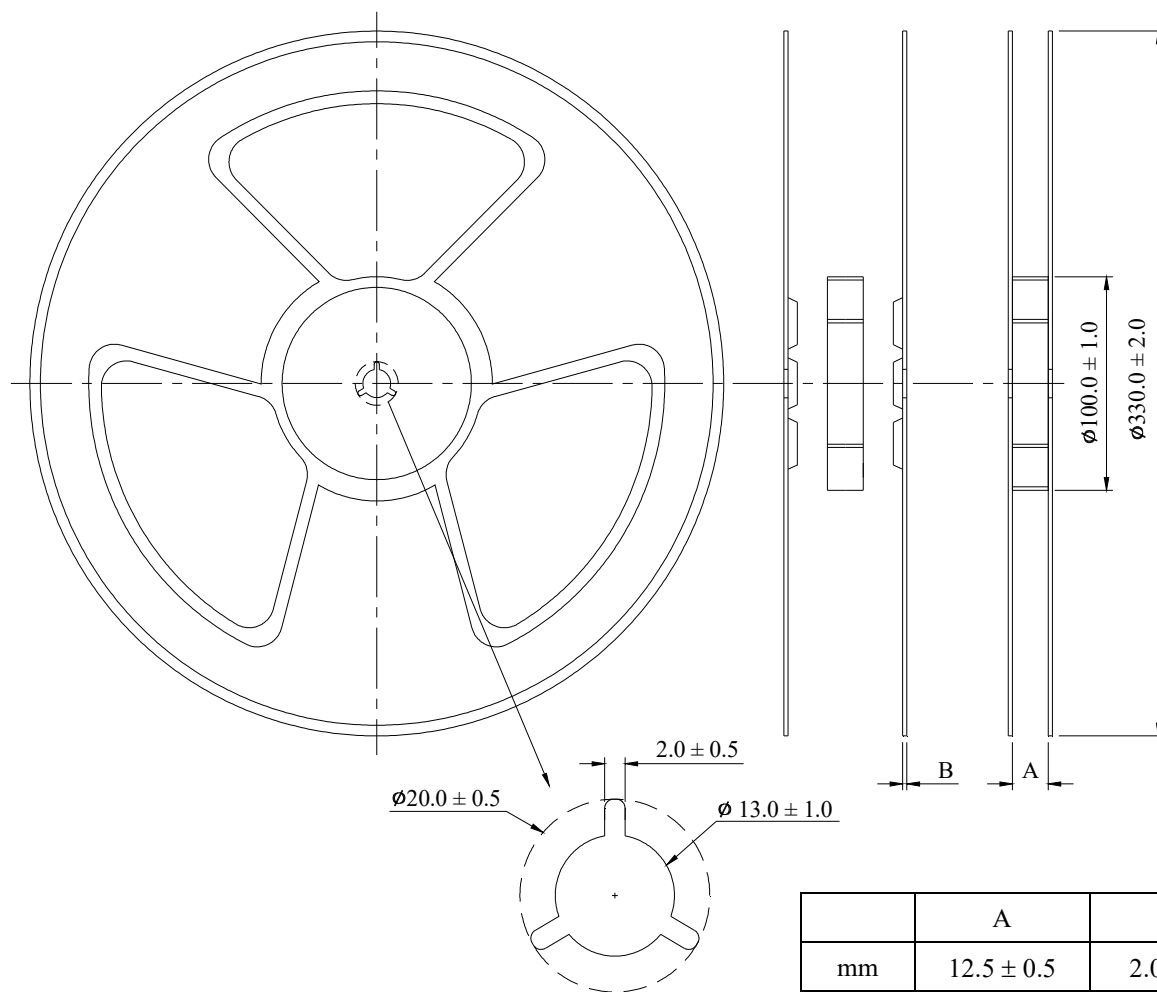
Dimensions Code (mm)				UNITS/REEL
A0	B0	K0	t	
3.5 ± 0.1	5.1 ± 0.1	3.1 ± 0.1	0.40 ± 0.05	2,500

(2) Tape direction

The direction shall be seen from the top cover tape side.



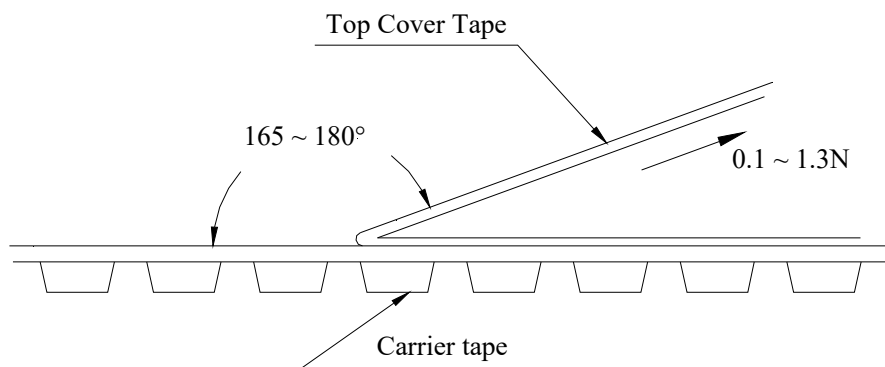
(3) Reel dimensions



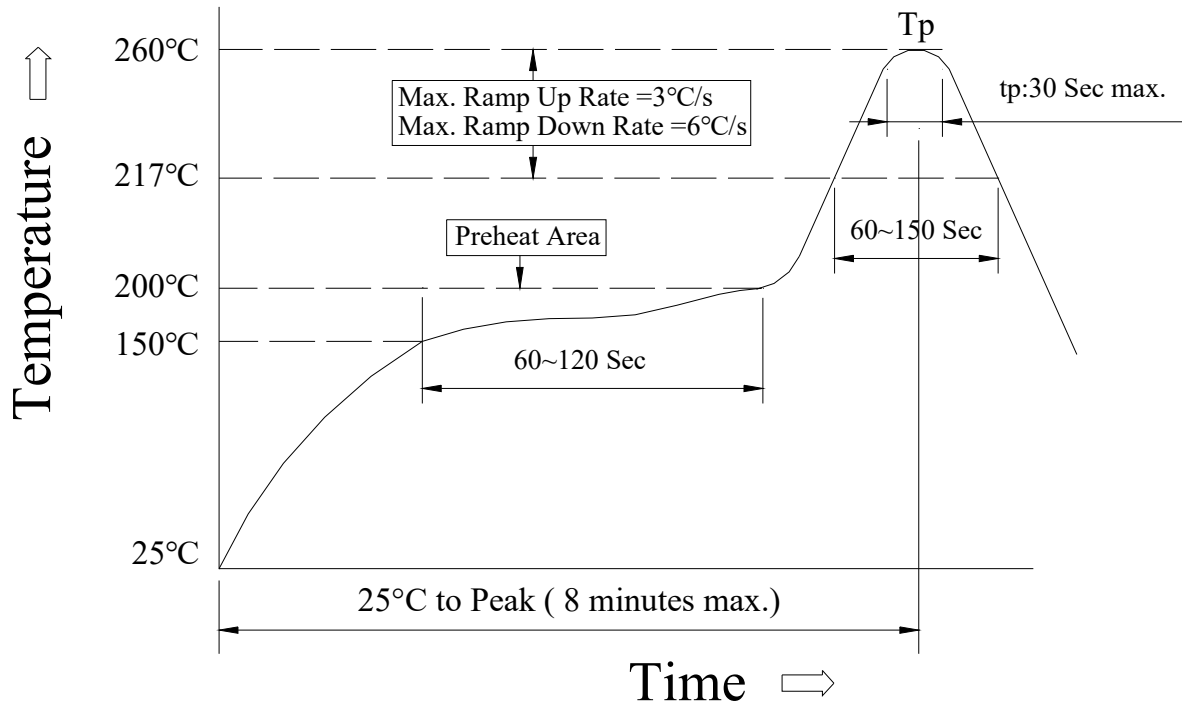
(4) Peel force of top cover tape

The peel speed shall be about 300 mm/minute.

The peel force of top cover tape shall be between 0.1 to 1.3N.



■ Reflow profile



(1) Reflow Soldering Method :

Reflow Soldering	Tp:255~260°C	Max.30 seconds ( tp )
	≥ 217°C	60~150 seconds
Pre-Heat	150 ~ 200°C	60~120 seconds
Time 25°C to peak temperature	8 minutes max.	

(2) Soldering iron Method : 350 ± 5°C max.3 seconds