The history of revision change for the specification

Document	REV.	Modified date	Description
CYNVF-207-002	A0	2020.7.2	New Approval
CYNVF-207-002	A1	2022.02.23	1. Jul., 2020 -> Feb., 2022 2. Add the coplanarity in the dimensions 3. Year code 2020 = 0 -> 2022 = 2
CYNVF-207-002	A2	2023.12.07	1. Feb., 2022 -> Dec., 2023 2. Year code 2022 = 2 -> 2023 = 3 3. Add Specifications Note6: We do not recommend the use of conformal coating, please discuss with us if you have this requirement.
CYNVF-207-002	A3	2024.8.1	1. Dec., 2023 -> Aug., 2024 2. Add spec and curve of 510

Wire-wound Common Mode Choke VFC3225 Series

AEC-Q200

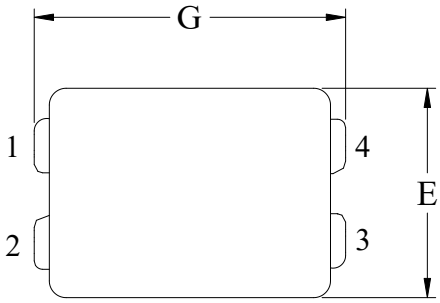
Features

High-level mode conversion Scd21 performance
Operating temperature -55℃~150℃
Suitable for lead-free reflow soldering
Compliance with RoHS and Halogen Free
AEC-Q200 qualified

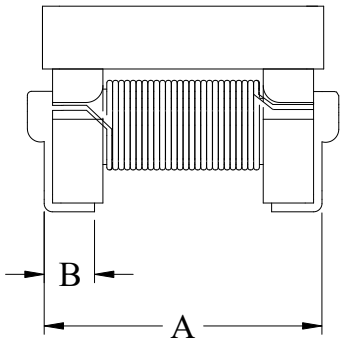
Application

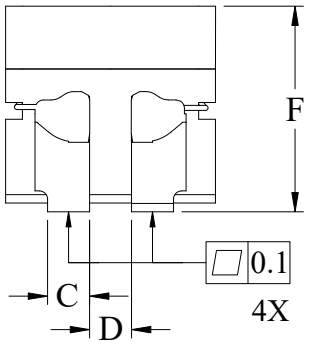
Used radiation noise suppression for automotive CAN-BUS/CAN-FD/Flex Ray/A^{2}B (Audio Bus) systems
Used for Industrial field bus systems

Outline Dimensions

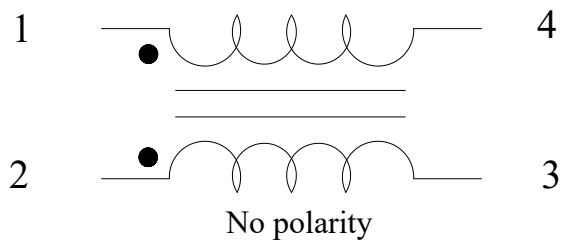


Code	Dimensions (mm)
A	3.4 Max.
B	0.6 ± 0.1
C	0.5 ± 0.1
D	0.5 ± 0.1
E	2.5 ± 0.2
F	2.6 Max.
G	4.0 Max.

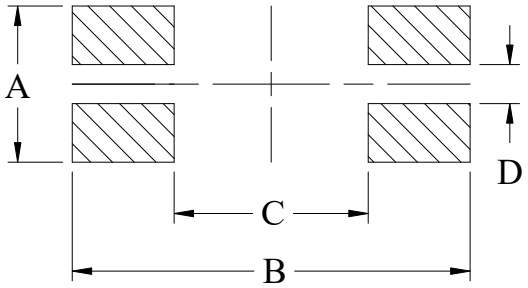




Schematic



Recommend Land Pattern Dimensions



A	1.6
B	4.1
C	2.0
D	0.4

Unit : mm

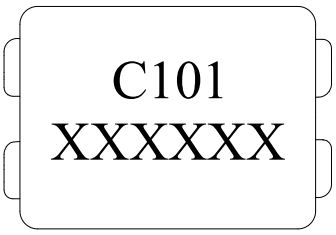
Marking and Date Code

(1) Marking

The inductor is marked with a 3-digit code

Example – – 100μH → 101

(2) Date Code



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

Where (1) Year Code

Ex : 2024 = 4

(2) Weekly Code

Serial number : 01 ~ 53

(3) Taping No.

Serial number : 001 ~ ZZZ

Specifications

Part Number	Common Mode Inductance (μH) Note3 ◇	Stray Inductance (μH) Note3	Common Mode Impedance (Ω) Note4		DCR (Ω) ◇	Rated Current (mA)	Rated Voltage (Vdc)	Insulation Resistance (MΩ)
		Typ.	Min.	Typ.	Max.	Max.	Max.	Min.
VFC3225-510	51	0.09	1000	2600	0.9	200	80	10
VFC3225-101	100	0.13	2200	5100	2.0	150	80	10

◇：Significant Characteristic

Note 1.： Inductance Tolerance ：-30% / +50%

Note 2.： All test data is referenced to 25℃ ambient.

Note 3.： Test Condition:100KHz, 0.1Vrms

Note 4.： Test Condition:10MHz, 0.1Vrms

Note 5.： Operating Temperature Range -55℃ to +150℃

Note 6.： Cleaning Process Note

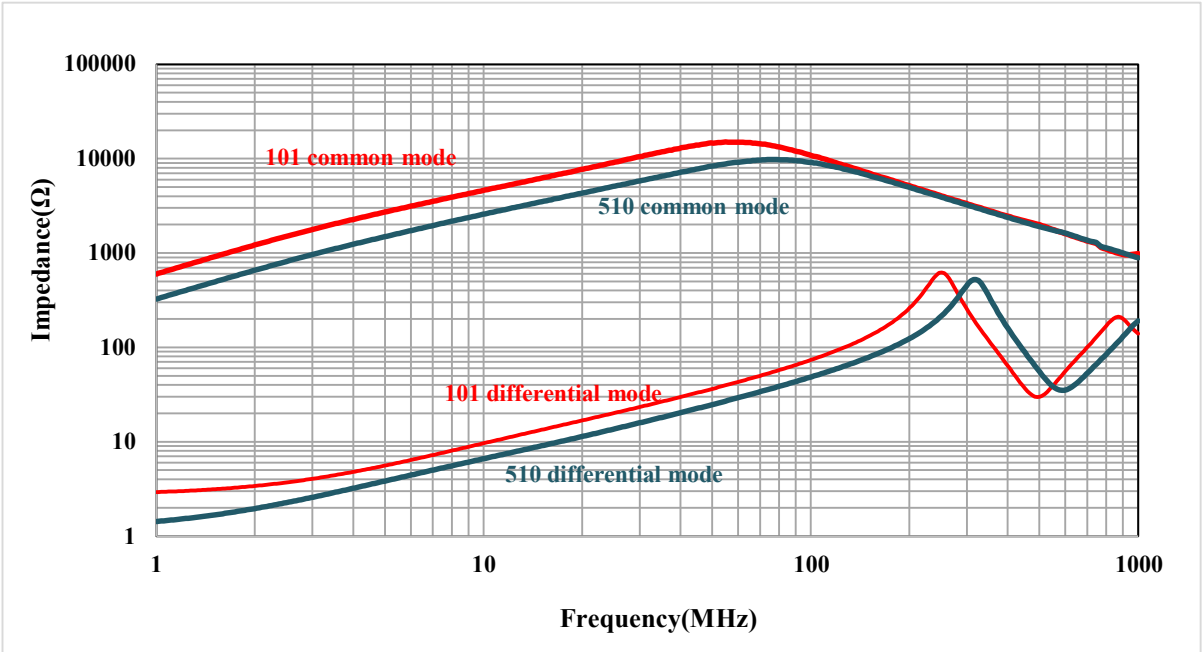
(a) If this power choke is dipped in the cleaning agent, such as toluene, xylene, ketone, and ether system, there is a possibility that the performance decreases greatly

(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.

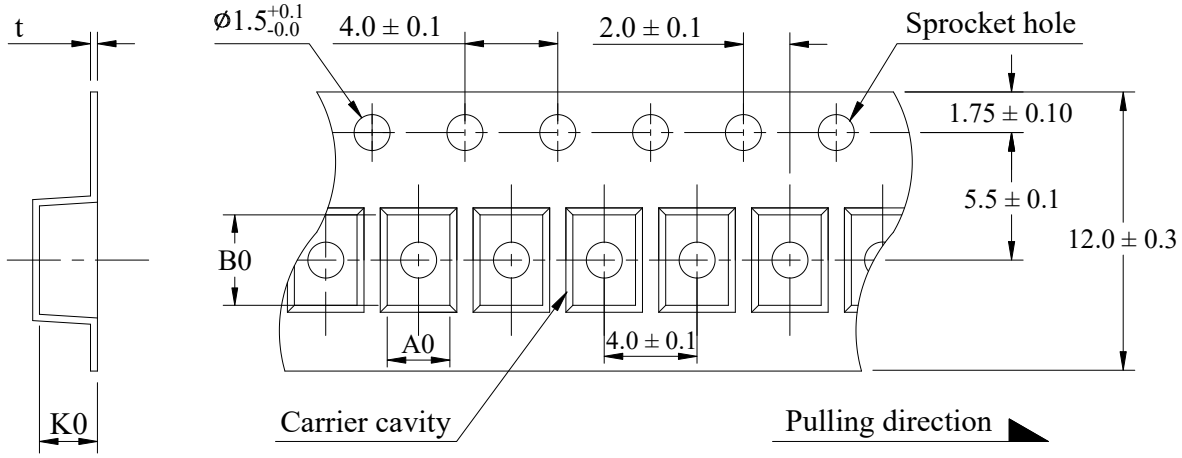
Note 7.： We do not recommend the use of conformal coating, please discuss with us if you have this requirement.

Impedance VS. Frequency Characteristic



Packaging

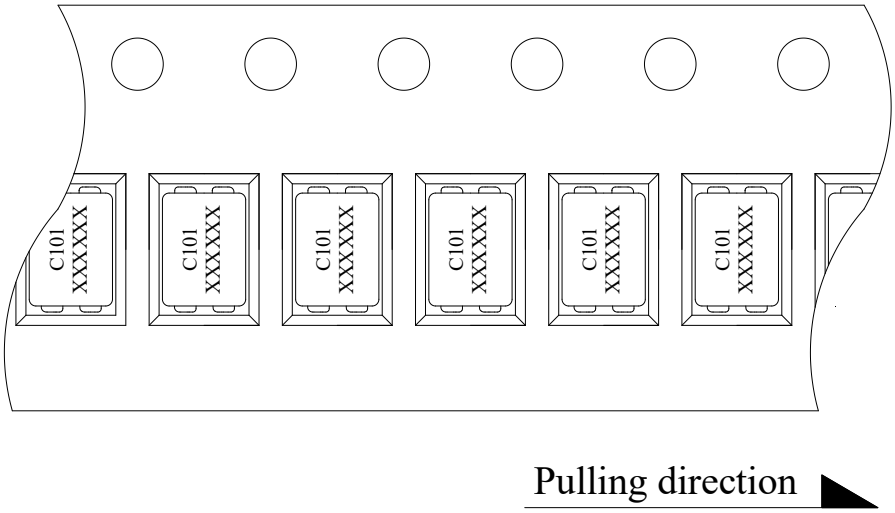
(1) Tape packaging dimensions



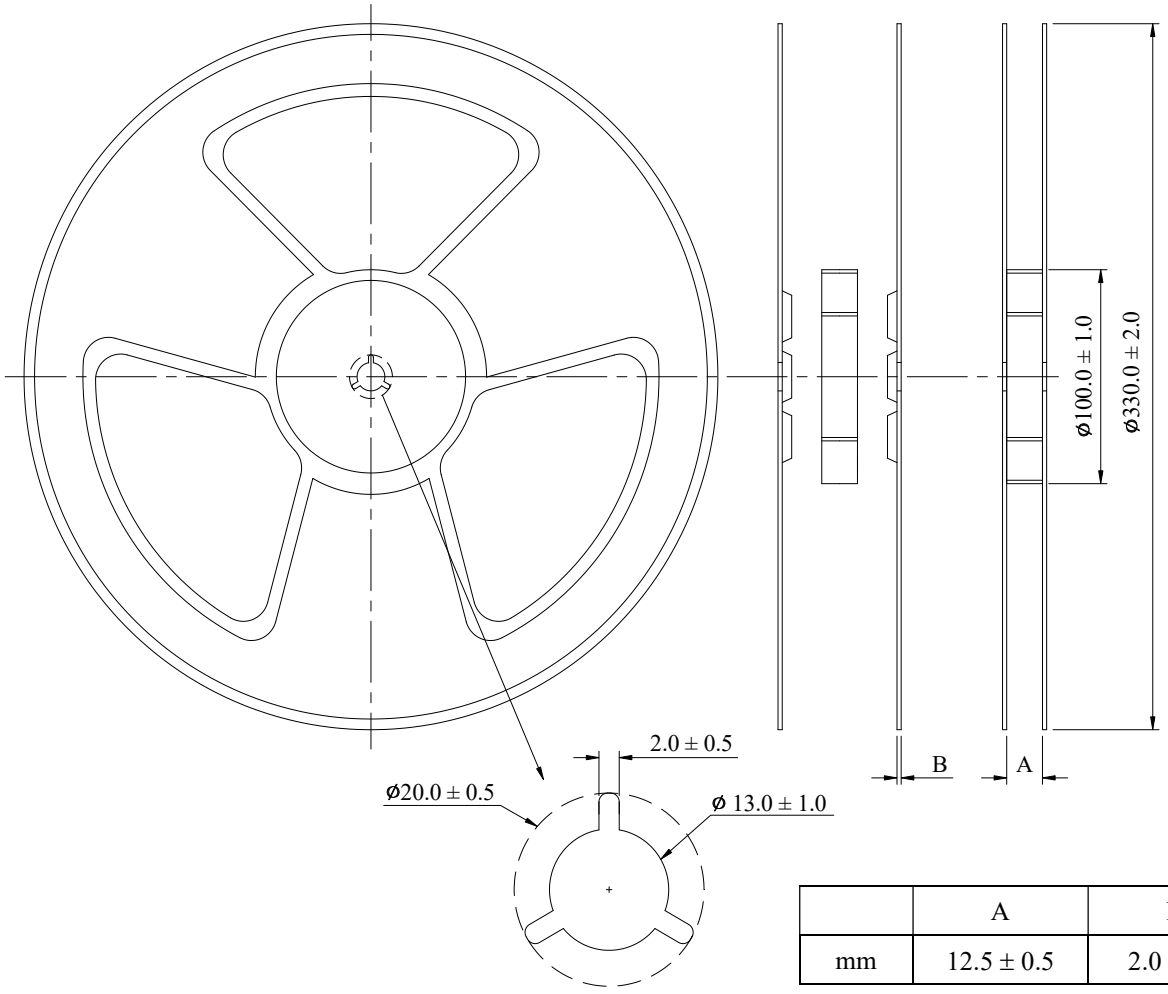
Dimensions Code (mm)				UNITS/REEL
A0	**B0**	**K0**	**t**	
2.7 ± 0.1	3.9 ± 0.1	2.8 ± 0.1	0.35 ± 0.10	5,000

(2) Tape direction

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



(3) Reel dimensions

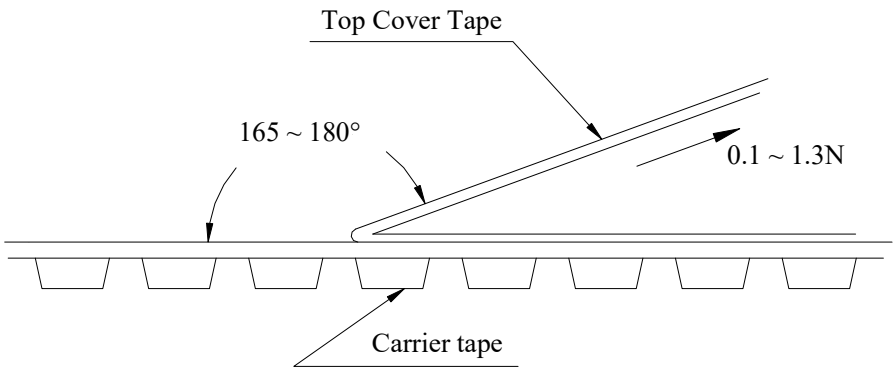


	A	B
mm	12.5 ± 0.5	2.0 ± 0.2

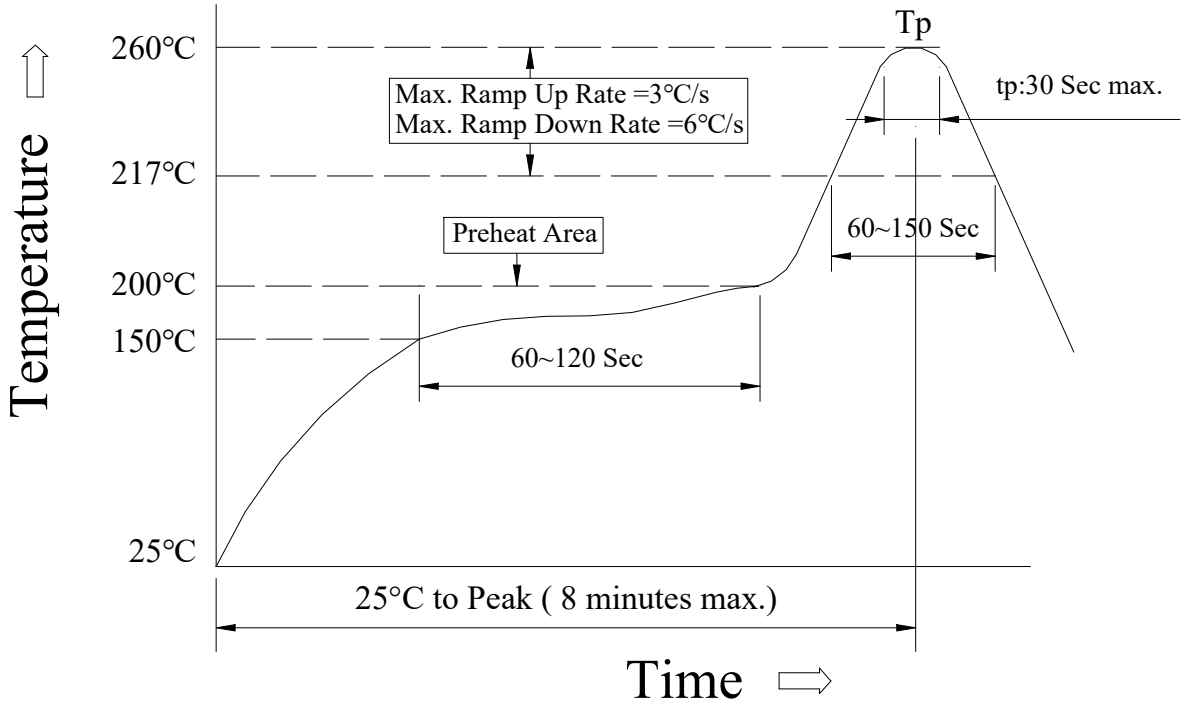
(4) Peel force of top cover tape

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