

The history of revision change for the specification

Document	REV.	Modified date	Description
CYNVF-21Y-007	A0	2021.11.30	New Approval
CYNVF-21Y-007	A1	2022.02.23	1. Nov.,2021 -> Feb., 2022 2. Update Outline Dimensions G: 4.0max. -> 4.1max. 3. Year code 2021 = 1 -> 2022 = 2 4. Update Tape packaging dimensions 5.5+/-0.1 -> 5.5+/-0.05 2.0+/-0.1 -> 2.0+/-0.05 Dimensions Code A0: 2.7+/-0.1 -> 2.75+/-0.05 B0: 3.9+/-0.1 -> 4.10+/-0.05 Update Reel dimensions 13.0+/-1.0 -> 13.0+0.5/-0.2 20.0+/-0.5 -> 20.2 min.
CYNVF-21Y-007	A2	2022.04.07	1. Feb. -> Apr. 2. Remove notice "Preliminary specification" 3. Add "AEC-Q200" logo 4. Add notice "AEC-Q200 qualified" in Features

Wire-wound Common Mode Choke VFE3225 NB Series

AEC-Q200

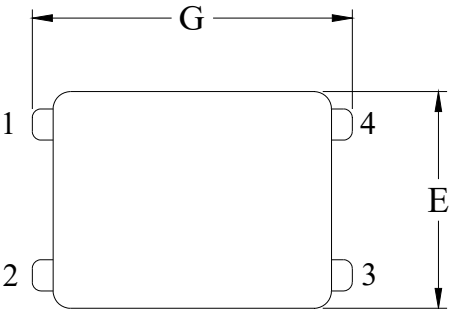
Features

Compatible with OPEN Alliance: IEEE 1000BASE-T1 EMC Test Specification for Common Mode Chokes, Version 2.0
 Operating temperature -40°C~125°C
 Suitable for lead-free reflow soldering
 Compliance with RoHS and Halogen Free
 AEC-Q200 qualified

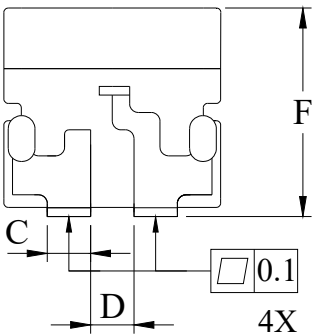
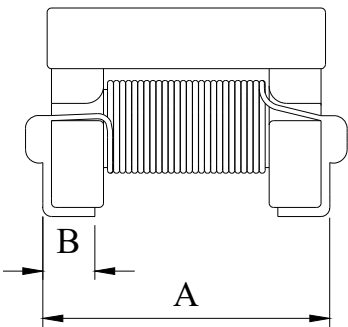
Application

Noise suppression for automotive Ethernet system

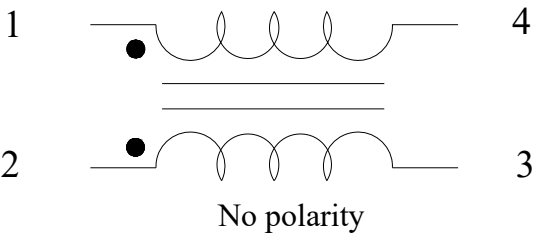
Outline Dimensions



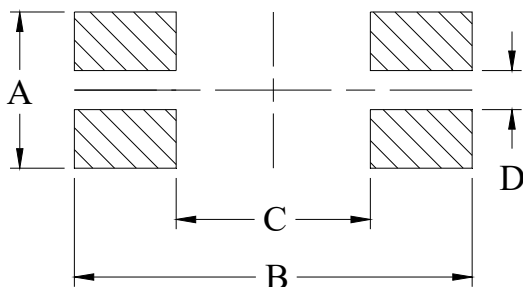
Code	Dimensions (mm)
A	3.4 Max.
B	0.6 ± 0.1
C	0.5 ± 0.1
D	0.5 ± 0.1
E	2.5 ± 0.2
F	2.6 Max.
G	4.1 Max.



Schematic



Recommend Land Pattern Dimensions



A	1.6
B	4.1
C	2.0
D	0.4

Unit : mm

Marking and Date Code

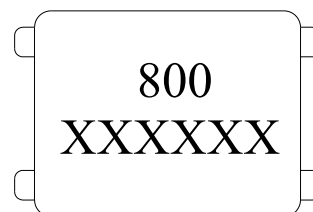
Marking

The inductor is marked with a 3-digit code

Example -- $80\mu\text{H}$ → 800

Date Code

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



Where (1) Year Code

Ex : 2022 = 2

(2) Weekly Code

Serial number : 01 ~ 53

(3) Taping No.

Serial number : 001 ~ ZZZ

Specifications

Part Number	Common Mode Inductance (μ H) Note2 ◇	DCR (Ω) ◇	Rated Current (mA)	Rated Voltage (Vdc)	Insulation Resistance (M Ω)
		Max.	Max.	Max.	Min.
VFE3225-800NB	80	2.4	70	80	10

◇ : Significant Characteristic

*Inductance Tolerance : -30% / +50%

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

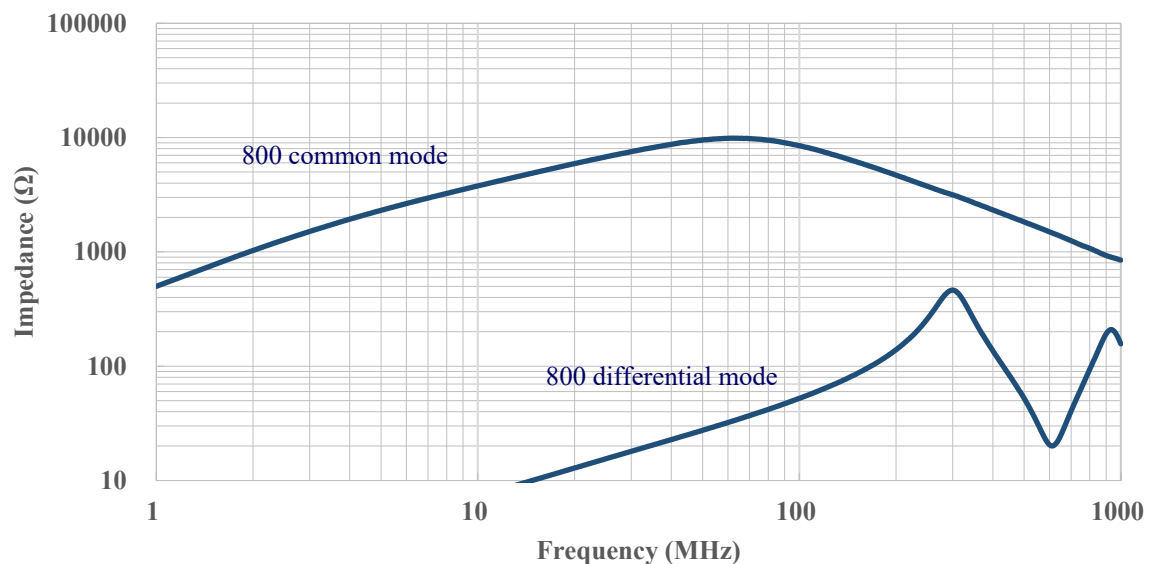
Note 2. : Test Condition:100KHz, 0.1Vrms

Note 3. : Operating Temperature Range -40°C to +125°C

Note 4. : Cleaning Process Note

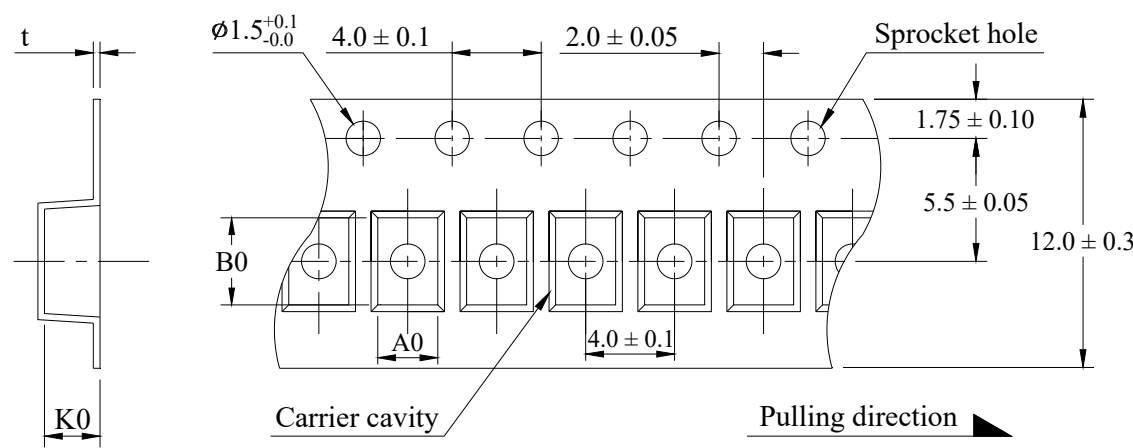
- (a) If this power choke is dipped in the cleaning agent, such as toluene, xylene, ketone, and ether system, there is a possibility that the performance decreases greatly
- (b) The high power ultrasonic washing may damage the choke body.
- (c) Please contact us if you need the cleaning via the above agents or ultrasonic washing.

Impedance VS. Frequency Characteristic



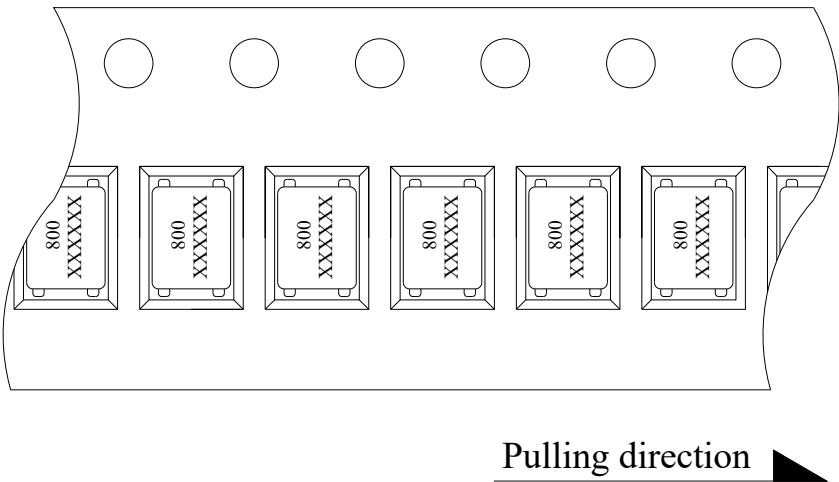
Packaging

(1) Tape packaging dimensions

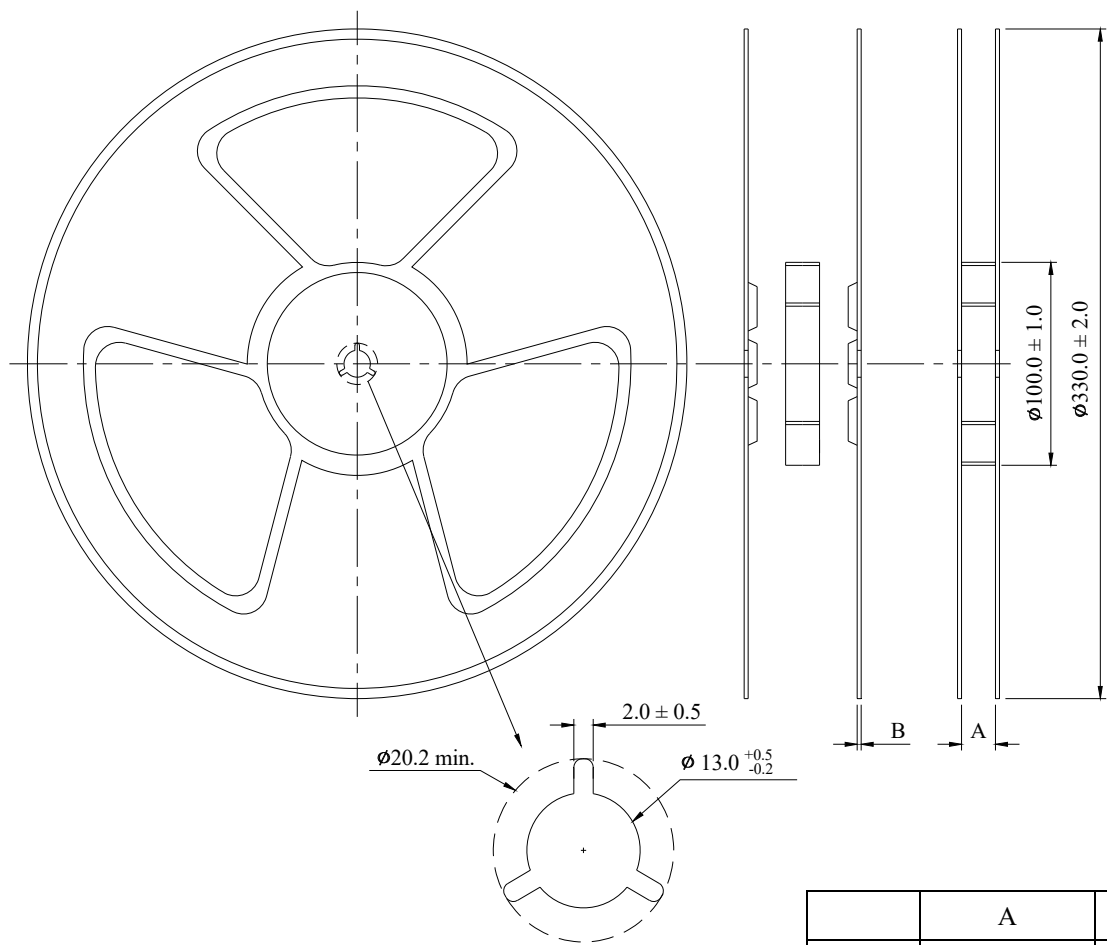


Dimensions Code (mm)				UNITS/REEL
A0	B0	K0	t	
2.75 ± 0.05	4.10 ± 0.05	2.8 ± 0.1	0.35 ± 0.10	5,000

(2) Tape Direction
The direction shall be seen from the top cover tape side.

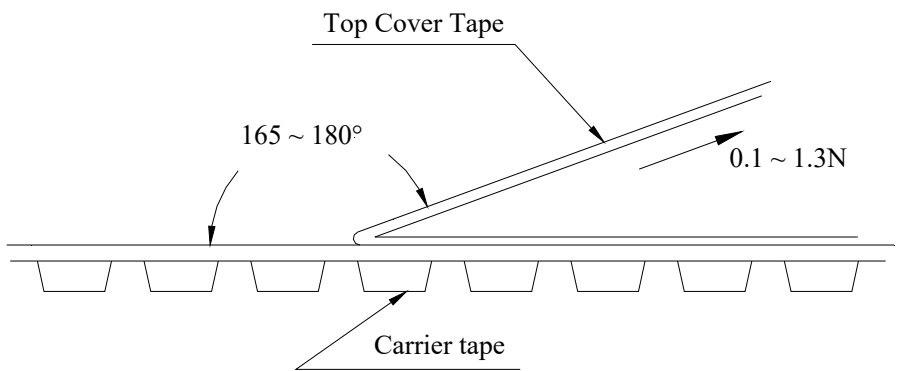


(3) Reel dimensions

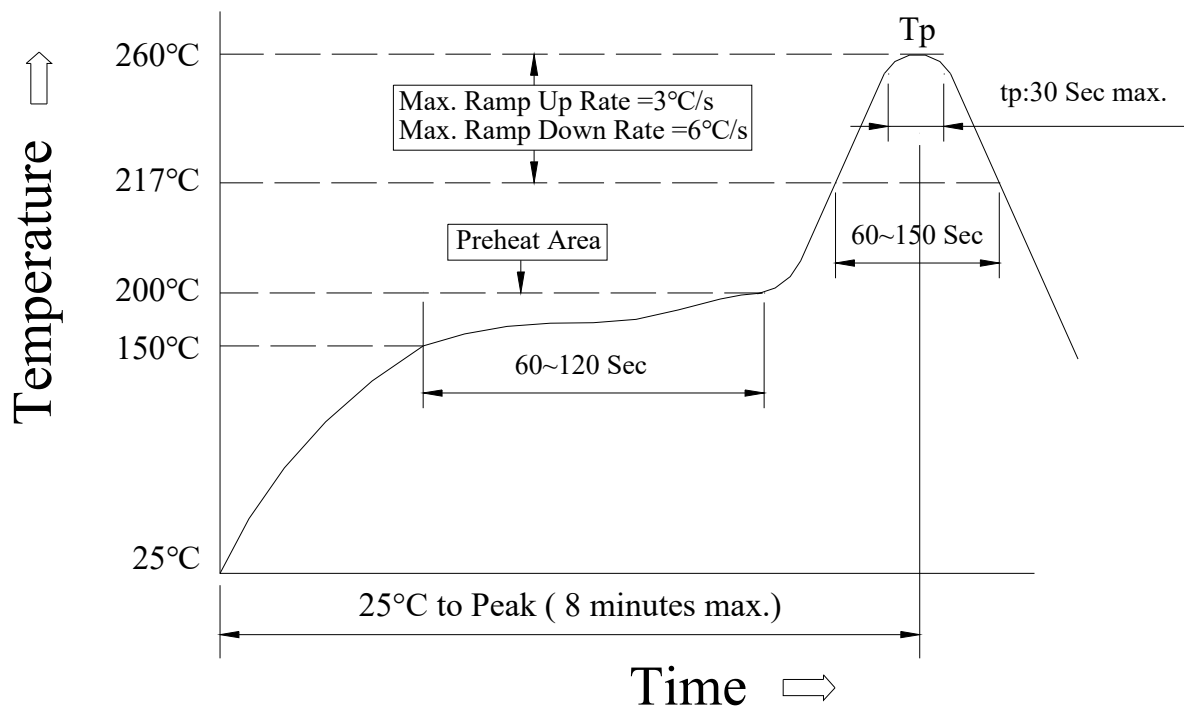


(4) Peel force of top cover tape

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