

Wire-wound Common Mode Choke VFB4532 V Series

AEC-Q200

■ Features

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

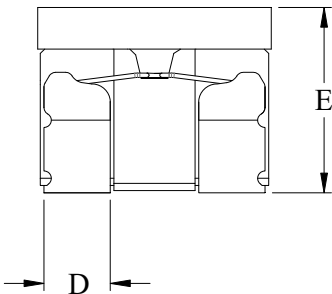
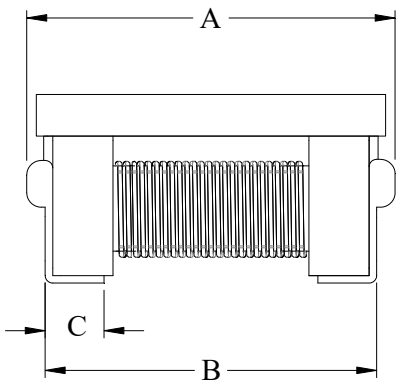
■ Application

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

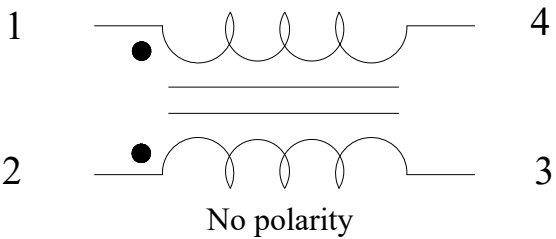
■ Outline Dimensions



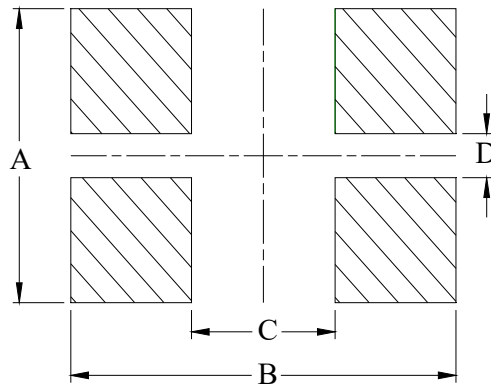
| Code | Dimensions (mm) |
|------|-----------------|
| A    | 5.2 Max         |
| B    | 4.5 ± 0.2       |
| C    | 0.8 ± 0.2       |
| D    | 0.9 ± 0.2       |
| E    | 2.6 ± 0.2       |
| F    | 3.2 ± 0.2       |



■ Schematic



### ■ Recommend Land Pattern Dimensions



|   |     |
|---|-----|
| A | 4.0 |
| B | 5.9 |
| C | 2.2 |
| D | 0.6 |

Unit : mm

### ■ Marking and Date Code

#### Marking

The inductor is marked with a 3-digit code

Example -- 100.0 $\mu$ H → 101

#### Date Code

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

Where (1) Year Code

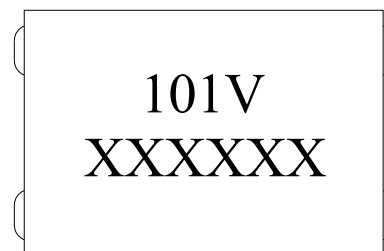
Ex : 2021 = 1

(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.                            | Typ. | Max.      | Max.               | Max.                | Min.                       |
| VFB4532-101V | 100.0                               | 0.2                         | 2000                            | 5000 | 2.0       | 150                | 80                  | 10                         |

◇ : Significant Characteristic

\*Inductance Tolerance : ±40%

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

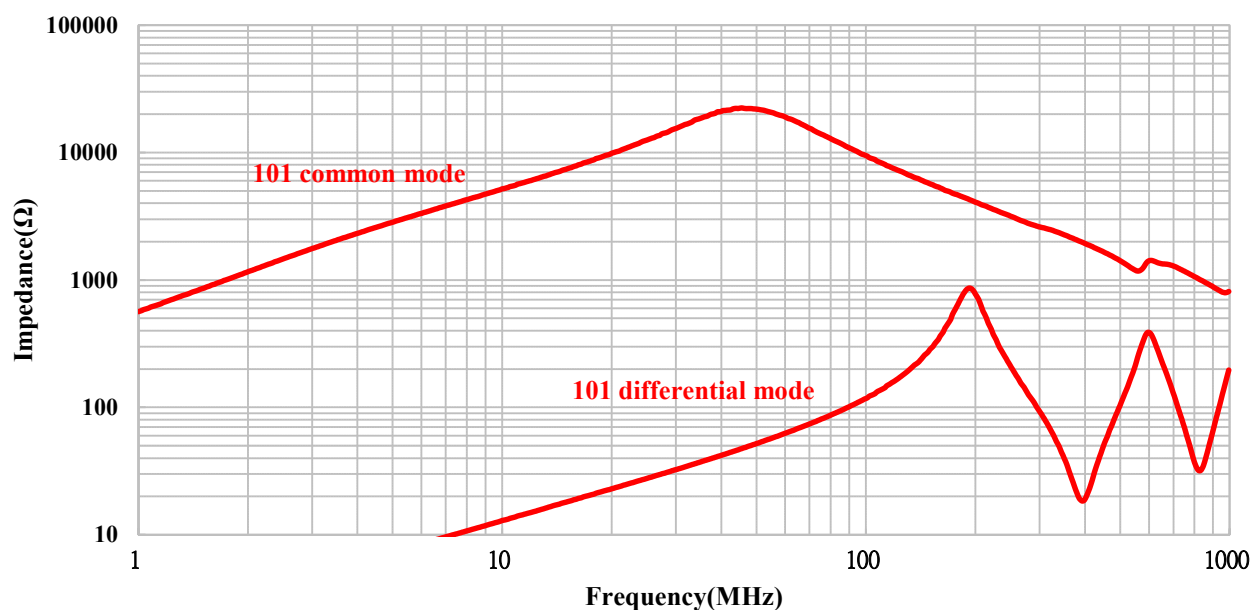
(a) If this power choke is dipped in the cleaning agent, such as toluene, xylene, ketone, and ether system, there is a possibility that the performance decreases greatly

(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.

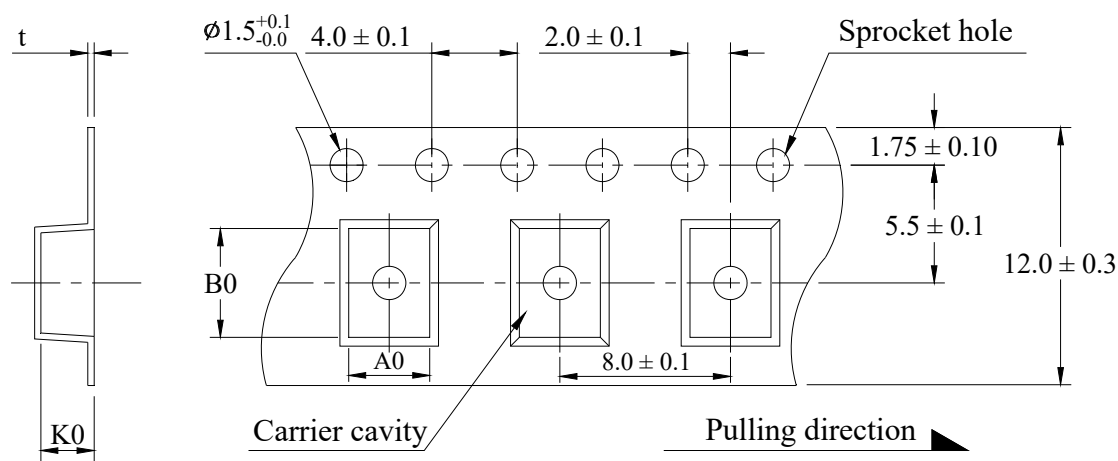
Note 6. : Moisture Sensitivity Level: MSL1 (unlimited floor life at<30°C/85% relative humidity).

## ■ Impedance VS. Frequency Characteristic



**Packaging**

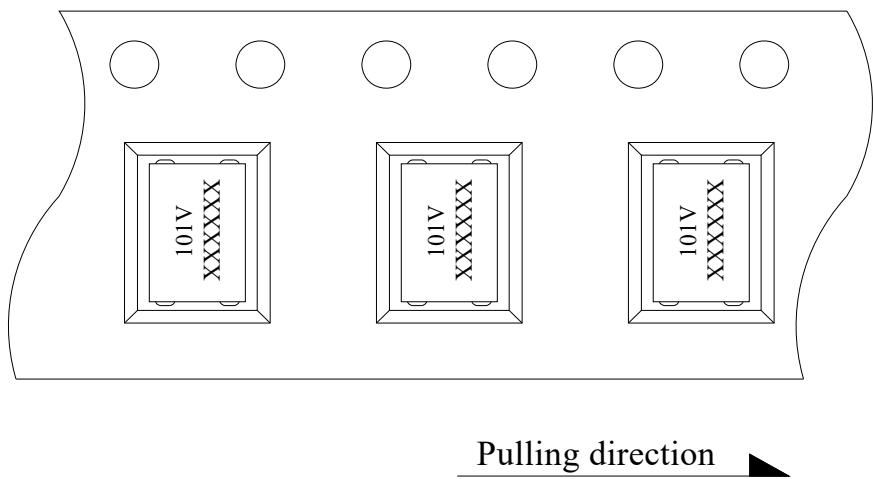
(1) Tape packaging dimensions



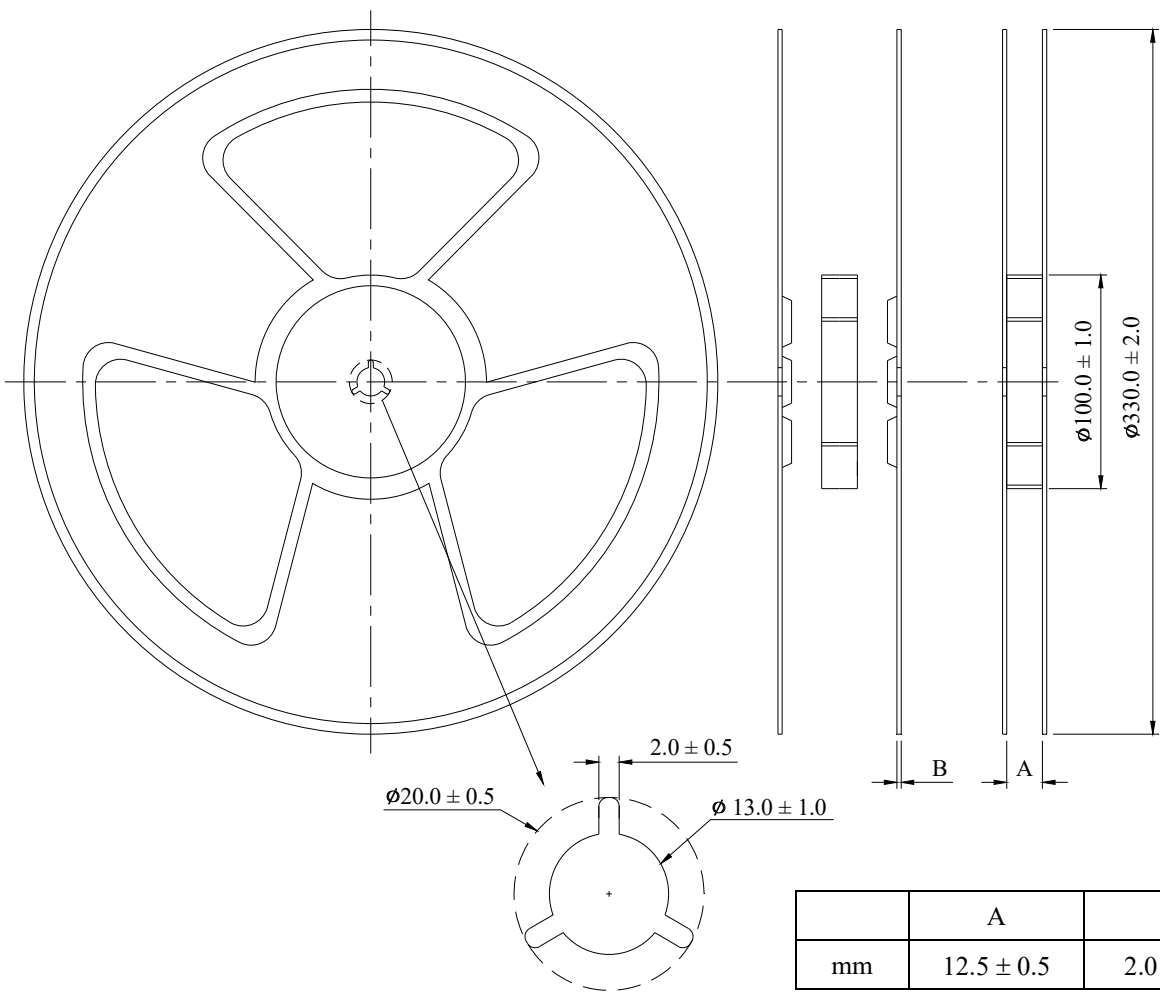
| Dimensions Code (mm) |               |               |                 | UNITS/REEL |
|----------------------|---------------|---------------|-----------------|------------|
| A0                   | B0            | K0            | t               |            |
| $3.5 \pm 0.1$        | $5.1 \pm 0.1$ | $3.1 \pm 0.1$ | $0.40 \pm 0.05$ | 2,500      |

(2) Tape Direction

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

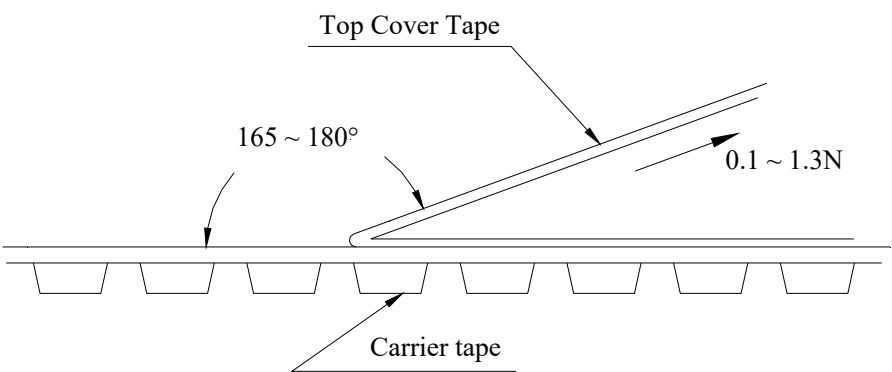


(3) Reel dimensions

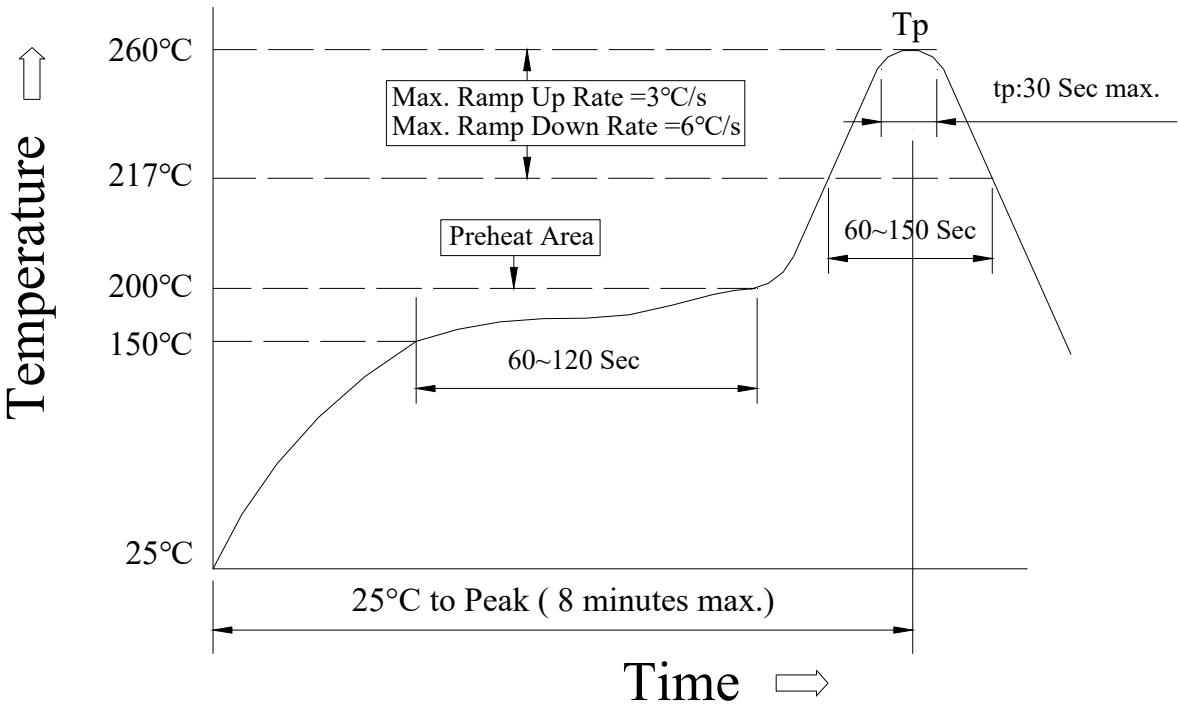


(4) Peel force of top cover tape

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

# Mouser Electronics

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