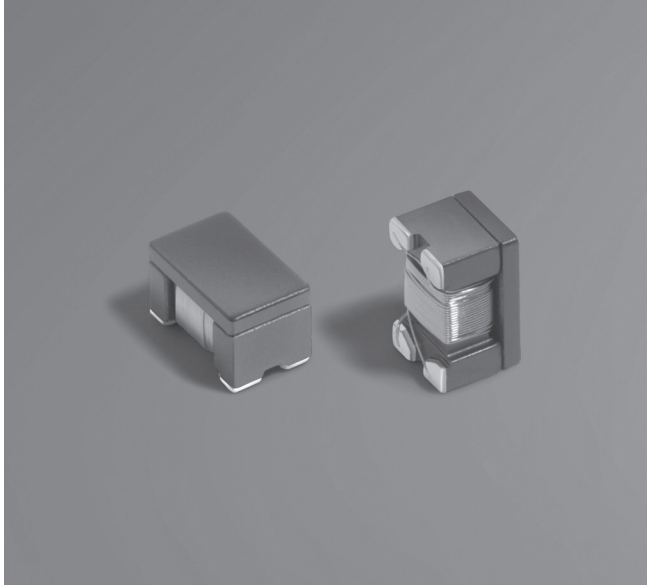


# Common Mode Choke 1812CANbus



- Designed for common mode noise suppression on CAN or CAN FD in automotive or general industrial automation applications
- Can be used for FlexRay automotive bus system
- 50% lower DCR and higher current handling than other CANbus chokes in the market
- Filters a broad frequency range of common mode noise
- Low profile 1812 footprint: 4.95 × 3.18 × 3.0 mm

**Core material** Ferrite

**Environmental** RoHS compliant, halogen free

**Weight** 120 – 130 mg

**Terminations** RoHS compliant matte tin over nickel over silver-palladium-glass frit.

**Ambient temperature** -40°C to +125°C with Irms current.

**Maximum Part Temperature** +150°C

**Storage temperature** Component: -40°C to +150°C.

Tape and reel packaging: -40°C to +80°C

**Resistance to soldering heat** Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles

**Moisture Sensitivity Level (MSL)** 1 (unlimited floor life at <30°C / 85% relative humidity)

**PCB washing** Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787\\_PCB\\_Washing.pdf](#).

Part number <sup>1</sup>	Inductance <sup>2</sup> ±30% (µH)	DCR max <sup>3</sup> (Ohms)	Isolation <sup>4</sup> (Vrms)	Irms <sup>5</sup> (mA)
1812CAN-113NR_	11	0.27	250	460
1812CAN-223NR_	22	0.40	250	400
1812CAN-513NR_	51	0.59	250	300
1812CAN-104NR_	100	1.0	250	260

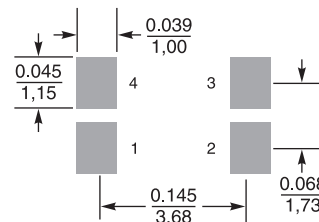
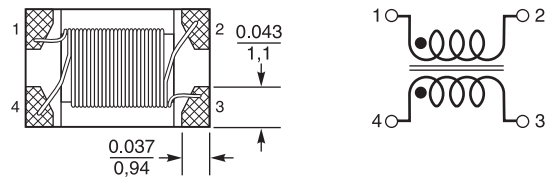
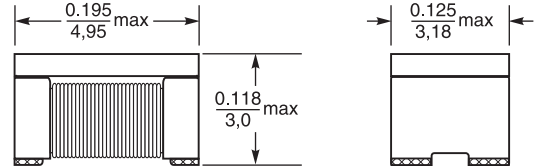
1. When ordering, please specify **packaging** code:

**1812CAN-104NRC**

**Packaging:** **C** = 7 machine-ready reel. EIA-481 embossed plastic tape (600 parts per full reel). Quantities less than full reel available: in tape (not machine ready) or with leader and trailer (\$25 charge).

**D** = 13 machine-ready reel. EIA-481 embossed plastic tape. Factory order only, not stocked (2200 parts per full reel).

- Inductance is per winding, measured at 100 kHz, 0.1 Vrms, 0 Adc using an Agilent/ HP 4263B LCR meter and a Coilcraft CCF 1113 fixture.
  - DCR is specified per winding, measured at on a Keithley 580 micro-ohmmeter and a Coilcraft CCF 858 fixture.
  - Winding to winding isolation (hipot) tested for one minute.
  - Equal current when applied to each winding simultaneously that causes a 25°C temperature rise from 125°C ambient. This information is for reference only and does not represent absolute maximum ratings.
  - Electrical specifications at 25°C.
- Refer to Doc 362 "Soldering Surface Mount Components" before soldering.



**Recommended Land Pattern**

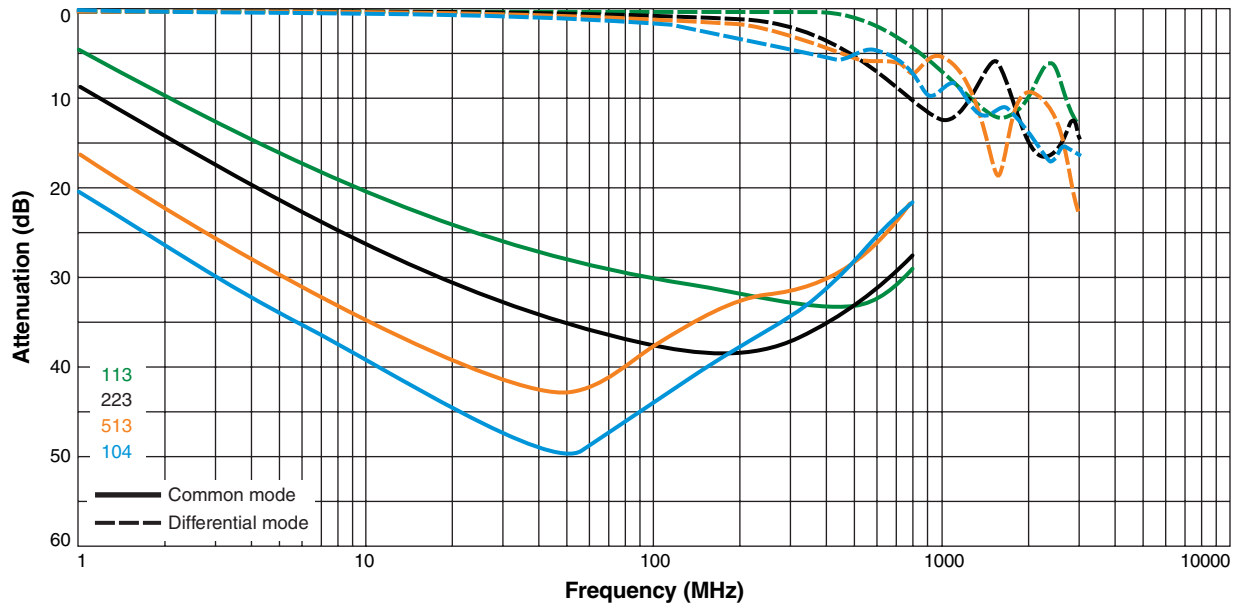
Dimensions are in  $\frac{\text{inches}}{\text{mm}}$

**Packaging** 600/7" reel; 2200/13" reel; Plastic tape: 12 mm wide, 0.30 mm thick, 8 mm pocket spacing, 3.05 mm pocket depth



# Common Mode Choke – 1812CANbus

## Typical Attenuation (Ref: 50 Ohms)



## Typical Impedance vs Frequency

