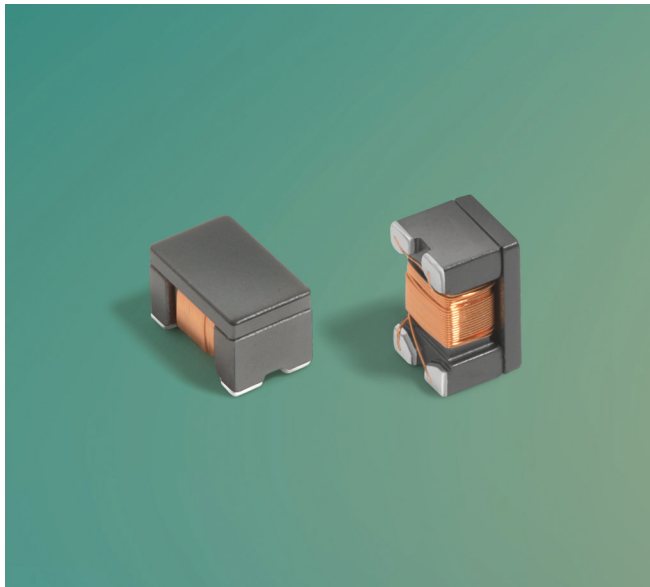


Common Mode Chokes ST450FRC



- 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

Weight 120 – 130 mg

Terminations 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: –55°C to +150°C.

Tape and reel packaging: –55°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)

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

PCB washing Tested to MIL-STD-202 Method 215 plus an additional aqueous wash. See [Doc787_PCB_Washing.pdf](#).

Part number ¹	Inductance ² ±30% (µH)	DCR max ³ (Ohms)	Isolation ⁴ (Vrms)	Irms ⁵ (mA)
ST450FRC113NRZ	11	0.27	250	460
ST450FRC223NRZ	22	0.40	250	400
ST450FRC513NRZ	51	0.59	250	300
ST450FRC104NRZ	100	1.0	250	260

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

ST450FRC104NRZ

Termination: R = Matte tin over nickel over silver-platinum glass frit

P = Tin-lead (63/37) over tin over nickel over silver-platinum-glass frit.

Q = Tin-silver-copper (95.5/4/0.5) over tin over nickel over silver-platinum-glass frit.

2. 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.

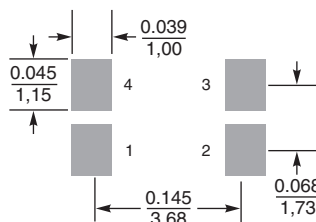
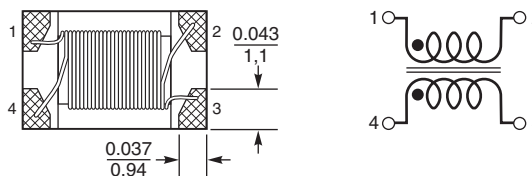
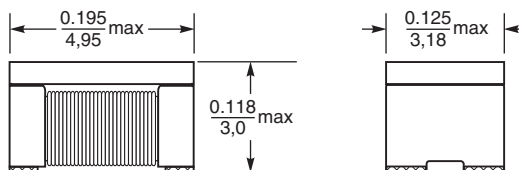
3. DCR is specified per winding, measured at on a Keithley 580 micro-ohmmeter and a Coilcraft CCF 858 fixture.

4. Winding to winding isolation (hipot) tested for one minute.

5. Current per winding that causes a 25°C rise from +125°C ambient.

6. Electrical specifications at 25°C.

Refer to Doc 362 "Soldering Surface Mount Components" before soldering.

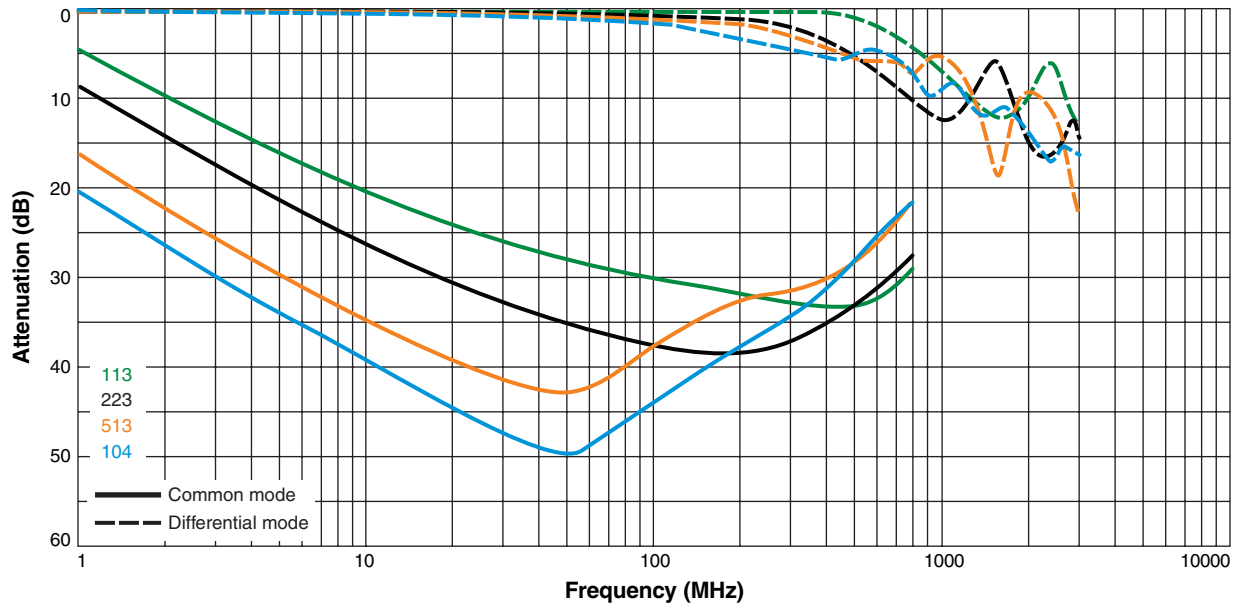


**Suggested
Land Pattern**

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

Common Mode Chokes – ST450FRC

Typical Attenuation (Ref: 50 Ohms)



Typical Impedance vs Frequency

