



## CAN-Bus Common Mode Chokes

Current compensated surface mount common mode chokes for controller area networks (CAN-Bus) in automotive, industrial and medical applications.

### Features:

- Surface Mount
- Accurate current matching capability over a broad range of inductance values
- Sector wound coils at 25 & 51  $\mu\text{H}$  to filter differential mode noise from the data signal.
- Low distortion
- Custom designs possible
- Smaller ( 1812 ) size parts are also available.

### Applications:

- Automotive controller area network systems
- Industrial controls controller area network systems
- Medical monitoring systems
- Filtering common mode EMI on high speed differential lines such as network and telecom applications

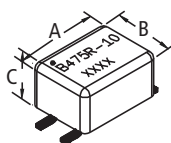
| CC                  | 1812           | C                  | 513                  | R              | -10                    |
|---------------------|----------------|--------------------|----------------------|----------------|------------------------|
| Product Series Code | Part Size Code | Rated Current Code | Impedance Value Code | Packaging Code | Additional Description |

Operating Temperature Range: -40°C to +125°C (0°C to 125°C for  $L_p \geq 1000 \mu\text{m}$ )

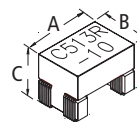
| PART NUMBER    | Lp Inductance ( $\mu\text{H}$ ) |        |        |        | Impedance (Z)          | L leakage ( $\mu\text{H}$ ) | Hi-Pot (VAC) 0.5 mA 2 sec. | DCR Typical ( $\Omega$ ) | Idc (mA) continuous |
|----------------|---------------------------------|--------|--------|--------|------------------------|-----------------------------|----------------------------|--------------------------|---------------------|
|                | Test Conditions                 | MIN    | NOM    | MAX    |                        |                             |                            |                          |                     |
| CC1812C513R-10 | 100 KHz / 50 mV                 | 35.7   | 51.0   | 66.3   | 3500 $\Omega$ @40 MHz  | 2.60                        | 250                        | 0.50                     | 200                 |
| CC2824J502R-10 | 100 KHz / 50 mV                 | 3.5    | 5.0    | 6.5    | 400 $\Omega$ @500 MHz  | 0.05                        | 250                        | 0.10                     | 1200                |
| CC2824E113R-10 | 100 KHz / 50 mV                 | 7.7    | 11.0   | 14.3   | 800 $\Omega$ @200 MHz  | 0.05                        | 250                        | 0.12                     | 800                 |
| CC2824E253R-10 | 100 KHz / 50 mV                 | 17.5   | 25.0   | 32.5   | 2000 $\Omega$ @100 MHz | 1.50                        | 250                        | 0.13                     | 800                 |
| CC2824E513R-10 | 100 KHz / 50 mV                 | 35.0   | 51.0   | 66.3   | 3800 $\Omega$ @50 MHz  | 2.00                        | 250                        | 0.16                     | 800                 |
| CC2824E474R-10 | 100 KHz / 50 mV                 | 329.0  | 470.0  | 611.0  | 8600 $\Omega$ @5 MHz   | 0.20                        | 750                        | 0.20                     | 700                 |
| CC2824E105R-10 | 100 KHz / 50 mV                 | 700.0  | 1000.0 | 1500.0 | 4250 $\Omega$ @7 MHz   | 0.20                        | 750                        | 0.20                     | 700                 |
| CC2824D225R-10 | 10 KHz / 50 mV                  | 1540.0 | 2200.0 | 3300.0 | 5300 $\Omega$ @5 MHz   | 0.25                        | 750                        | 0.40                     | 500                 |
| CC2824B475R-10 | 10 KHz / 50 mV                  | 3290.0 | 4700.0 | 7050.0 | 12300 $\Omega$ @2 MHz  | 0.30                        | 750                        | 0.55                     | 400                 |

### Dimensions

| PART NUMBER | A mm (inches)        | B mm (inches)        | C mm (inches)        |
|-------------|----------------------|----------------------|----------------------|
| CC2824      | 7.50 MAX (0.295 MAX) | 5.50 MAX (0.217 MAX) | 3.80 MAX (0.150 MAX) |
| CC1812      | 5.00 MAX (0.197 MAX) | 3.50 MAX (0.138 MAX) | 5.55 MAX (0.140 MAX) |



CC2824  
Surface Mount



CC1812  
Surface Mount



# Typical Insertion Loss @ 50 $\Omega$

