PRODUCT PROFILE & CROSS-REFERENCE

NIC Components Corp.

Product Category:
Passives; Magnetics, Common Mode Chokes; SMT; AEC-Q200

NCCH
NCCR
NCCD

AEC Q200

NCC_ Series

Automotive-grade Surface Mount Common Mode Chokes

High Temperature, Long Life, and High Current Rated

NIC Components Corp. is pleased to announce the expansion of the NCC series of surface mount common mode chokes featuring three new AEC-Q200 automotive-grade; NCCH, NCCR, and NCCD product series. These common-mode chokes are supported in both 1210 and 1812 case sizes, featuring high common-mode impedances providing excellent noise suppression.

The NCCH features high current ratings (up to 4A) with impedance values ranging from 90 to 2,800 ohm. The expected end-use applications for the NCCR Series and NCCD Series include 'Can-Flex Ray' and 'Can-FD' networking circuits, respectively. Supporting higher data rates, the Can-Flex Ray and Can FD data-communication protocols are upgrades to the controller area network (CAN) commonly used in automotive sensing, computing, and control networks.

The NCCR and NCCD series have temperature ratings of -55°C to +150°C and -40°C to +125°C respectively. The NCCR Series supports inductance values from 11uH to 100uH with current ratings of 150mA to 360mA and voltage ratings of 50V to 80V. The NCCD Series supports inductance values from 51uH to 200uH (30 ohms to 220 ohms Z) with current ratings of 70mA to 200mA and voltage ratings of 50V and 80V.

Features:

- High common mode Impedance at high frequencies
- High reliability complied to ACE-Q200
- Provides excellent noise suppression
- For high-speed placement and reflow soldering
- Low profile

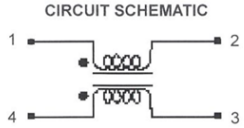
Applications:

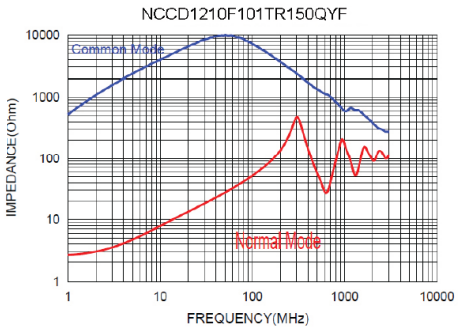
- Automotive data networks:
  - Can- Flex Ray & Can FD
- USB Port Hubs
- High Speed Data Lines
- Monitors & Displays
- POS Equipment

Performance Comparison Table:

Characteristic	NCCH	NCCR	NCCD
Values	Z = 90 to 2,800 Ω	L = 11 to 100 uH	L = 100uH & 200uH
Voltage Ratings	50 V	50V and 80V	50V and 80V
DC Current	400 to 4000 mA	150 to 300 mA	70 to 150 mA
Operating Temperature	-55°C to +125°C	-55°C to +150°C	-40°C to +125°C
Case Sizes	1210 & 1812	1210 & 1812	1210 & 1812

CIRCUIT SCHEMATIC





Cross-Reference

NIC	Murata	TDK
NCCH	DLW21SZ	ACM2012H-T03
NCCR	DLW43SH	ACT1210R ACT45R
NCCD	DLW32SH	ACT1210D