



## Moulded Inductors

FASTRON Moulded Inductor CCS series always provides a great alternative whenever you need a very high inductance inductor to come in a SMD package. The CCS Series has tin plated terminations and is encapsulated with high temperature resistance material suitable to work in tough environments. The inductances range from 1uH to up 33000uH.

**Applications** This SMD part has been widely accepted by users that prefer to use reflow soldering for their production line instead of through-hole mounting. Some of them include medical, automotive and communication products.

### Technical Data

L – Value (rated inductance)	Measured with Bode 100 Vector Network Analyzer at frequency $f_L$
Q – Factor (min)	Measured with Bode 100 Vector Network Analyzer at frequency $f_Q$
SRF (min)	Measured with HP 8753ES Network Analyzer
DCR (max)	Measured at 25°C
Rated DC Current	I based on temperature rise, determined at the point where the temperature rise does not exceed 40°C above the ambient temperature of 25°C
Operating Temperature	-55°C to +125°C (includes component self-heating)
Recommended soldering method	Reflow
Moisture Sensitivity Levels (MSL)	MSL Level 1, indicating unlimited floor life at $\leq 30^\circ\text{C}$ / 85% relative humidity
Solderability	Using lead free solder (Sn 99.9) at $260^\circ\text{C} \pm 5^\circ\text{C}$ for $5 \pm 0.5$ seconds, min 90% solder coverage of metallization Standard: IEC 68-2-20 (Ta)
Resistance to Soldering Heat	Resistant to $260^\circ\text{C} \pm 5^\circ\text{C}$ for $10 \pm 1$ seconds Standard: IEC 68-2-20 (Tb)
Resistance to Solvent	Resistant to Isopropyl alcohol for $5 \pm 0.5$ minutes at $23^\circ\text{C} \pm 5^\circ\text{C}$ Standard: IEC 68-2-45
Climatic Test	Defined by the following standards IEC 68-2-1 for Cold test: $-55^\circ\text{C}$ for 96 hours IEC 68-2-2 for Dry heat test: $+125^\circ\text{C}$ for 96 hours IEC 60068-2-78 for Humidity test: $40^\circ\text{C}$ at RH 95% for 4 days
Thermal Shock Test	Temperature cycle : $-55^\circ\text{C}$ to $+125^\circ\text{C}$ to $-55^\circ\text{C}$ Max/Min temperature duration: 15 minutes Temperature transition duration: 5 minutes Cycles: 25 Standard: MIL-STD-202G
Adhesion of Soldered Component (Shear Test)	Components withstand a pushing force of 10N for $10 \pm 1$ seconds Standard: IEC 60068-2-21, method Ue <sub>3</sub>
Mechanical Shock	Mil-Std 202 Method 213 Condition C 3 axis, 6 times, total 18 shocks 100 G, 6 ms, half-sine
Vibration	Mil-Std 202 Method 204 20 mins at 5G 10 Hz to 2000 Hz 12 cycles each of 3 orientations

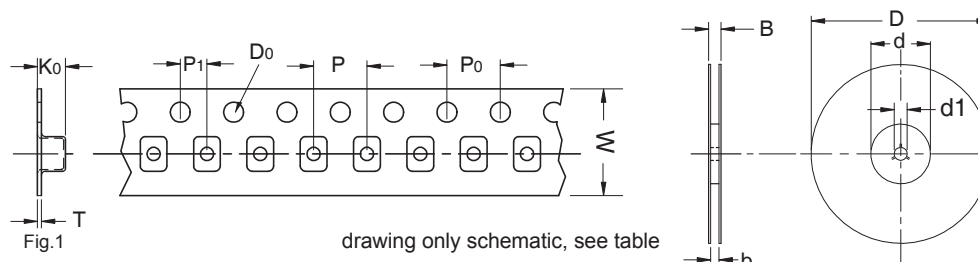
Technical Data & Packing Spec

**Ordering Code** Example: CCSH-100X-04

**CCS**    **H**    -    **100**       **X**    -    **04**       ➔    **CCSH-100K-04**  
 (Model)(Case Size) (Inductance Value) (Tolerance) (Packing Code)

Case Sizes    - H (15.2\*6.1\*6.0) mm, S (12.6\*4.4\*4.5) mm  
 Tolerances    - J (5%), K (10%)  
 Packing Code   - 04 (Taped / Reel)

### Packing Specification



drawing only schematic, see table

Type	D	D <sub>0</sub>	d	d <sub>1</sub>	B	b	W	P	P <sub>0</sub>	P <sub>1</sub>	K <sub>0</sub>	T
CCSH	330	1.55	100	13	30.4	24.4	24	12	4	2	7.3	0.4
CCSS	330	1.55	100	13	30.4	24.4	24	8	4	2	5.4	0.4