

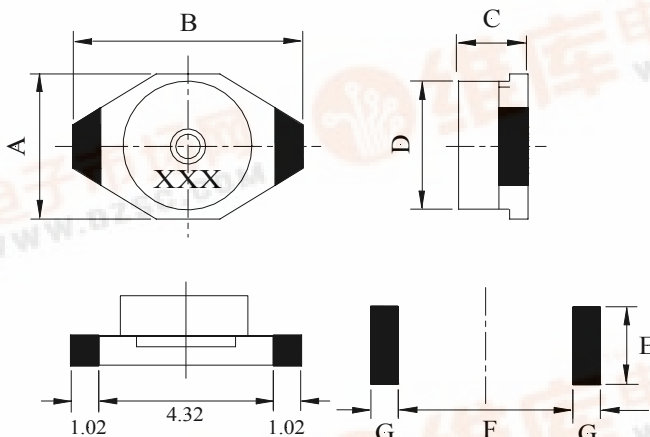
## SMD Power Choke—CST042C

### A. Electrical specifications:

| Part No.     | Mark | L (uH) @ 100KHz, 0A DC | DCR $\Omega$ (Max.) | L (uH) @ Rated I rms. | Rated I rms. | Max. Energy Storage (@Joules) | Switching Freq. (max.) |
|--------------|------|------------------------|---------------------|-----------------------|--------------|-------------------------------|------------------------|
| CST042C-1R0M | 1R0  | 1.00                   | 0.065               | 0.60                  | 2.00         | 1.8                           | 1MHz                   |
| CST042C-1R5M | 1R5  | 1.50                   | 0.070               | 0.80                  | 1.90         | 1.8                           | 1MHz                   |
| CST042C-2R2M | 2R2  | 2.20                   | 0.075               | 0.90                  | 1.50         | 1.8                           | 1MHz                   |
| CST042C-3R3M | 3R3  | 3.30                   | 0.080               | 1.50                  | 1.20         | 1.4                           | 1MHz                   |
| CST042C-4R7M | 4R7  | 4.70                   | 0.085               | 2.00                  | 1.20         | 1.6                           | 1MHz                   |
| CST042C-6R8M | 6R8  | 6.80                   | 0.090               | 3.00                  | 1.00         | 1.9                           | 1MHz                   |
| CST042C-100M | 100  | 10.0                   | 0.125               | 5.00                  | 0.70         | 1.2                           | 1MHz                   |
| CST042C-150M | 150  | 15.0                   | 0.135               | 6.00                  | 0.60         | 1.1                           | 1MHz                   |
| CST042C-220M | 220  | 22.0                   | 0.160               | 10                    | 0.50         | 1.2                           | 1MHz                   |
| CST042C-330M | 330  | 33.0                   | 0.275               | 12                    | 0.45         | 1.5                           | 1MHz                   |
| CST042C-470M | 470  | 47.0                   | 0.300               | 20                    | 0.34         | 1.3                           | 1MHz                   |
| CST042C-680M | 680  | 68.0                   | 0.575               | 30                    | 0.29         | 1.4                           | 1MHz                   |
| CST042C-101M | 101  | 100                    | 1.100               | 40                    | 0.24         | 1.5                           | 1MHz                   |
| CST042C-151M | 151  | 150                    | 1.400               | 60                    | 0.20         | 1.4                           | 500KHz                 |
| CST042C-221M | 221  | 220                    | 2.250               | 90                    | 0.17         | 1.6                           | 500KHz                 |
| CST042C-331M | 331  | 330                    | 2.900               | 100                   | 0.16         | 1.4                           | 500KHz                 |
| CST042C-471M | 471  | 470                    | 3.600               | 150                   | 0.14         | 1.5                           | 500KHz                 |
| CST042C-681M | 681  | 680                    | 4.550               | 200                   | 0.12         | 1.4                           | 500KHz                 |
| CST042C-102M | 102  | 1000                   | 8.100               | 400                   | 0.08         | 1.4                           | 500KHz                 |

### B. Mechanical dimensions: (Unit: mm):

| SERIES  | A (max.) | B (max.) | C (max.) | D(Ref.) | E    | F    | G    |
|---------|----------|----------|----------|---------|------|------|------|
| CST042C | 4.45     | 6.60     | 2.92     | 4.06    | 3.56 | 4.06 | 1.40 |



**Land Pattern**

### C. Features:

1. Tolerance: M:  $\pm 20\%$ .
2. Operating temperature:  $-25^{\circ}\text{C}$  TO  $+85^{\circ}\text{C}$
3. Electrical specifications at  $+25^{\circ}\text{C}$ .
4. Inductance measured on the HP4284A LCR meter.
5. DCR measured on the 502BC milli-ohm meter.
6. Temperature rises  $\Delta t < 15^{\circ}\text{C}$  (Typical) at rated I rms.
7. Average maximum allowable current: CST042C series are designed for current spikes as high as 2 times the current rated.
8. Inductance range: CST 042C series from 1.0uH(2.00A) to 1000uH(0.08A).

**Note: RoHS compliant; for the ROHS parts, we add "-LFR" at the end of the P/N.**

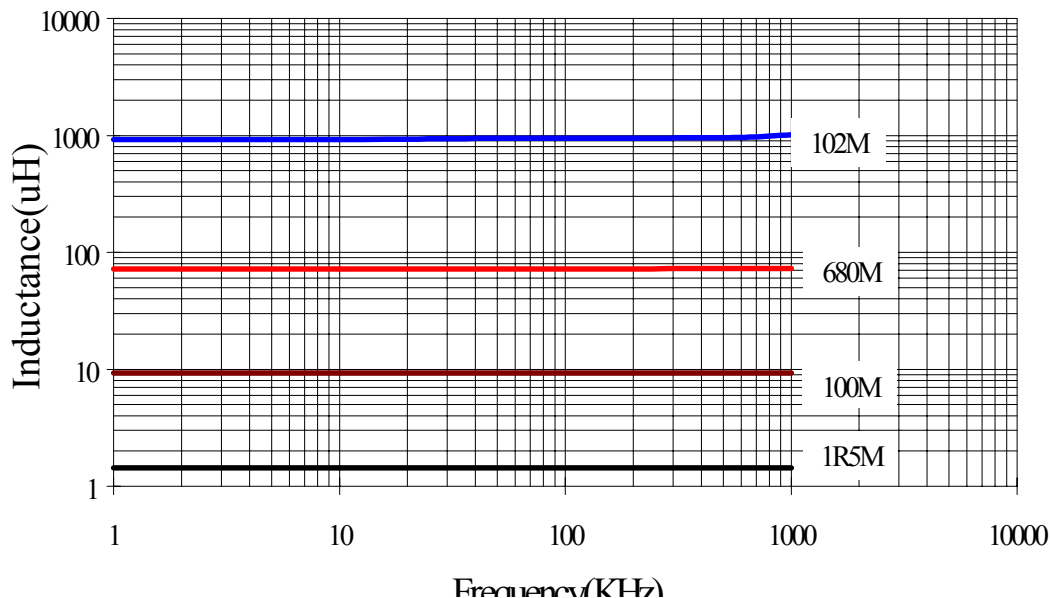




## SMD Power Choke—CSN042A series

### E. Characteristic curve:

#### 1. L vs. Frequency:



#### 2. Typical Inductance vs. Current:

