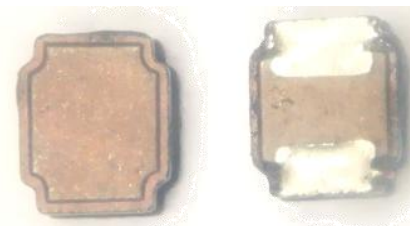




● **FEATURES 特性**

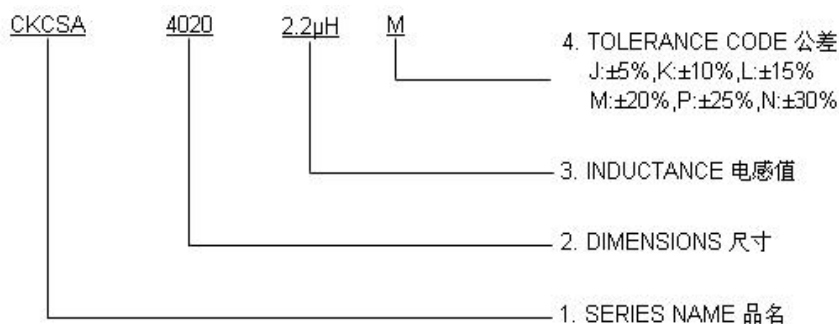
1. Metallization on ferrite core results in excellent shock resistance and damage-free durability.
2. Closed magnetic circuit design reduces leakage flux and Electro Magnetic Interference (EMI).
3. Fe base metal material core provides large saturation current.
4. Automatic production ensures high quality and consistency.



● **APPLICATIONS 用途**

1. Notebooks, desktop computers, servers, graphic cards.
2. Blue -ray disc recorders, set top box , Automotive systems.
3. Portable gaming devices, personal navigation systems, personal multimedia devices

● **PART NUMBERING SYSTEM 品名系统**



● **SHAPES AND DIMENSIONS 外形尺寸 (Unit:mm)**

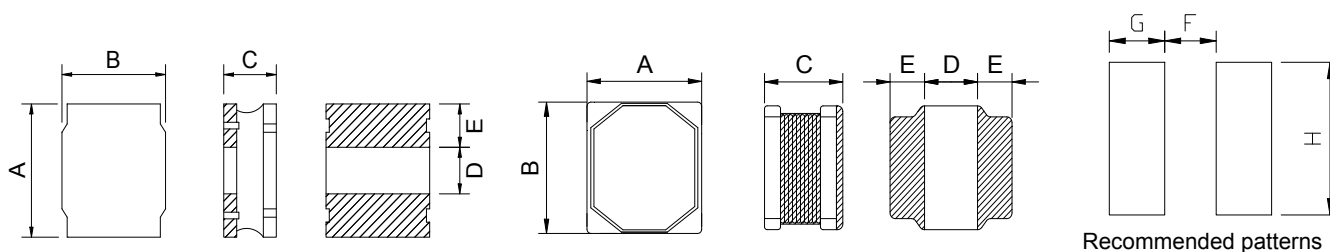


Fig 1

Fig 2

| TYPE(型号)    | A        | B        | C         | D       | E       | F   | G    | H   | Fig |
|-------------|----------|----------|-----------|---------|---------|-----|------|-----|-----|
| CKCSA201610 | 2.0±0.25 | 1.6±0.25 | 1.05 Max. | 0.9±0.2 | 0.6±0.2 | 0.6 | 0.8  | 1.8 | 1   |
| CKCSA252010 | 2.5±0.3  | 2.0±0.3  | 1.05 Max. | 0.8±0.2 | 0.8±0.2 | 0.6 | 1.00 | 2.2 | 1   |
| CKCSA252012 | 2.5±0.3  | 2.0±0.3  | 1.25 Max. | 0.8±0.2 | 0.8±0.2 | 0.6 | 1.00 | 2.2 | 1   |
| CKCSA3012   | 3.0±0.2  | 3.0±0.2  | 1.25 Max. | 1.2±0.3 | 0.9±0.3 | 1.1 | 1.0  | 2.7 | 2   |
| CKCSA4020   | 4.0±0.2  | 4.0±0.2  | 2.0 Max.  | 1.4±0.3 | 1.3±0.3 | 1.2 | 1.4  | 3.7 | 2   |



● SPECIFICATION TABLE:

**CKCSA201610 Type**

| PART NUMBER<br>品名    | INDUCTANCE<br>( $\mu$ H)<br>电感值 | DCR( $\Omega$ )直流电阻 |       | Isat (Max.) (A)<br>饱和电流 |      | Irms (Max.) (A)<br>额定电流 |      |
|----------------------|---------------------------------|---------------------|-------|-------------------------|------|-------------------------|------|
|                      |                                 | Max.                | Typ.  | Max.                    | Typ. | Max.                    | Typ. |
| CKCSA201610-0.33uH/M | 0.33 $\pm$ 20%                  | 0.043               | 0.035 | 4.70                    | 5.50 | 3.20                    | 3.60 |
| CKCSA201610-0.47uH/M | 0.47 $\pm$ 20%                  | 0.049               | 0.041 | 4.00                    | 4.70 | 2.70                    | 3.10 |
| CKCSA201610-0.68uH/M | 0.68 $\pm$ 20%                  | 0.065               | 0.057 | 3.50                    | 4.00 | 2.50                    | 2.80 |
| CKCSA201610-1.0uH/M  | 1.0 $\pm$ 20%                   | 0.090               | 0.075 | 3.35                    | 3.85 | 2.05                    | 2.35 |
| CKCSA201610-1.5uH/M  | 1.5 $\pm$ 20%                   | 0.130               | 0.110 | 1.95                    | 2.30 | 1.70                    | 2.00 |
| CKCSA201610-2.2uH/M  | 2.2 $\pm$ 20%                   | 0.170               | 0.142 | 1.90                    | 2.15 | 1.45                    | 1.70 |
| CKCSA201610-4.7uH/M  | 4.7 $\pm$ 20%                   | 0.425               | 0.370 | 1.20                    | 1.50 | 0.90                    | 1.00 |
| CKCSA201610-10uH/M   | 10 $\pm$ 20%                    | 0.826               | 0.688 | 0.80                    | 0.95 | 0.65                    | 0.75 |

**CKCSA252010 Type**

| PART NUMBER<br>品名    | INDUCTANCE<br>( $\mu$ H)<br>电感值 | DCR( $\Omega$ )直流电阻 |       | Isat (Max.) (A)<br>饱和电流 |      | Irms (Max.) (A)<br>额定电流 |      |
|----------------------|---------------------------------|---------------------|-------|-------------------------|------|-------------------------|------|
|                      |                                 | Max.                | Typ.  | Max.                    | Typ. | Max.                    | Typ. |
| CKCSA252010-0.33uH/N | 0.33 $\pm$ 30%                  | 0.039               | 0.033 | 4.80                    | 5.50 | 3.50                    | 4.05 |
| CKCSA252010-0.47uH/N | 0.47 $\pm$ 30%                  | 0.045               | 0.038 | 4.40                    | 5.20 | 3.20                    | 3.70 |
| CKCSA252010-0.68uH/N | 0.68 $\pm$ 30%                  | 0.059               | 0.049 | 3.20                    | 3.60 | 2.75                    | 3.20 |
| CKCSA252010-1.0uH/M  | 1.0 $\pm$ 20%                   | 0.076               | 0.063 | 3.10                    | 3.50 | 2.50                    | 2.90 |
| CKCSA252010-1.5uH/M  | 1.5 $\pm$ 20%                   | 0.106               | 0.088 | 2.60                    | 3.00 | 2.00                    | 2.30 |
| CKCSA252010-2.2uH/M  | 2.2 $\pm$ 20%                   | 0.155               | 0.129 | 1.90                    | 2.20 | 1.50                    | 1.80 |
| CKCSA252010-3.3uH/M  | 3.3 $\pm$ 20%                   | 0.235               | 0.196 | 1.60                    | 1.80 | 1.20                    | 1.40 |
| CKCSA252010-4.7uH/M  | 4.7 $\pm$ 20%                   | 0.276               | 0.230 | 1.30                    | 1.50 | 1.10                    | 1.30 |
| CKCSA252010-10uH/M   | 10 $\pm$ 20%                    | 0.500               | 0.435 | 0.90                    | 1.00 | 0.80                    | 0.90 |

Remark: 1. Inductance Tested at 1MHz, 0.25Vrms (20°C);

2. Isat: DC current at which the inductance drops approximate 30% from its value without current;

3. Irms: DC current that causes the temperature rise ( $\Delta T = 40^\circ\text{C}$ ) from 25°C ambient;

4. Operating Temperature : -40°C ~ +125°C;

5. Absolute maximum voltage: DC 25V.



● SPECIFICATION TABLE:

**CKCSA252012 Type**

| PART NUMBER<br>品名    | INDUCTANCE<br>( $\mu$ H)<br>电感值 | DCR( $\Omega$ )直流电阻 |       | Isat (Max.) (A)<br>饱和电流 |      | Irms (Max.) (A)<br>额定电流 |      |
|----------------------|---------------------------------|---------------------|-------|-------------------------|------|-------------------------|------|
|                      |                                 | Max.                | Typ.  | Max.                    | Typ. | Max.                    | Typ. |
| CKCSA252012-0.33uH/N | 0.33 $\pm$ 30%                  | 0.028               | 0.023 | 5.30                    | 6.20 | 3.70                    | 4.30 |
| CKCSA252012-0.47uH/N | 0.47 $\pm$ 30%                  | 0.035               | 0.029 | 4.90                    | 5.60 | 3.45                    | 4.00 |
| CKCSA252012-0.68uH/N | 0.68 $\pm$ 30%                  | 0.043               | 0.036 | 3.70                    | 4.30 | 3.15                    | 3.60 |
| CKCSA252012-1.0uH/M  | 1.0 $\pm$ 20%                   | 0.054               | 0.048 | 3.60                    | 4.20 | 3.00                    | 3.40 |
| CKCSA252012-1.5uH/M  | 1.5 $\pm$ 20%                   | 0.104               | 0.080 | 2.90                    | 3.50 | 2.40                    | 2.80 |
| CKCSA252012-2.2uH/M  | 2.2 $\pm$ 20%                   | 0.120               | 0.100 | 2.60                    | 3.00 | 1.90                    | 2.15 |
| CKCSA252012-3.3uH/M  | 3.3 $\pm$ 20%                   | 0.163               | 0.136 | 1.70                    | 2.10 | 1.80                    | 2.05 |
| CKCSA252012-4.7uH/M  | 4.7 $\pm$ 20%                   | 0.260               | 0.225 | 1.60                    | 1.90 | 1.25                    | 1.45 |
| CKCSA252012-6.8uH/M  | 6.8 $\pm$ 20%                   | 0.366               | 0.305 | 1.15                    | 1.35 | 0.95                    | 1.10 |
| CKCSA252012-10uH/M   | 10 $\pm$ 20%                    | 0.480               | 0.435 | 1.10                    | 1.35 | 0.85                    | 1.00 |
| CKCSA252012-22uH/M   | 22 $\pm$ 20%                    | 1.430               | 1.100 | 0.59                    | 0.70 | 0.48                    | 0.60 |

**CKCSA3012 Type**

| PART NUMBER<br>品名 | INDUCTANCE<br>( $\mu$ H)<br>电感值 | DCR( $\Omega$ )直流电阻 |       | Isat (Max.) (A)<br>饱和电流 |      | Irms (Max.) (A)<br>额定电流 |      |
|-------------------|---------------------------------|---------------------|-------|-------------------------|------|-------------------------|------|
|                   |                                 | Max.                | Typ.  | Max.                    | Typ. | Max.                    | Typ. |
| CKCSA3012-1.5uH/M | 1.0 $\pm$ 30%                   | 0.074               | 0.064 | 3.40                    | 4.10 | 2.50                    | 2.90 |
| CKCSA3012-2.2uH/M | 2.2 $\pm$ 30%                   | 0.108               | 0.090 | 2.80                    | 3.35 | 2.05                    | 2.35 |
| CKCSA3012-3.3uH/M | 3.3 $\pm$ 30%                   | 0.155               | 0.129 | 2.20                    | 2.60 | 1.70                    | 2.00 |
| CKCSA3012-4.7uH/M | 4.7 $\pm$ 30%                   | 0.235               | 0.196 | 2.00                    | 2.50 | 1.30                    | 1.50 |
| CKCSA3012-6.8uH/M | 6.8 $\pm$ 30%                   | 0.34                | 0.290 | 1.60                    | 1.90 | 1.10                    | 1.25 |
| CKCSA3012-10uH/M  | 10.0 $\pm$ 30%                  | 0.474               | 0.395 | 1.20                    | 1.45 | 1.00                    | 1.15 |

Remark: 1. Inductance Tested at 1MHz, 0.25Vrms (20°C);

2. Isat: DC current at which the inductance drops approximate 30% from its value without current;

3. Irms: DC current that causes the temperature rise ( $\Delta T = 40^\circ\text{C}$ ) from 25°C ambient;

4. Operating Temperature : -40°C ~ +125°C;

5. Absolute maximum voltage: DC 25V.



● SPECIFICATION TABLE:

CKCSA4020 Type

| PART NUMBER<br>品名        | INDUCTANCE<br>( $\mu$ H)<br>电感值 | DCR( $\Omega$ )直流电阻 |       | Isat (Max.) (A)<br>饱和电流 |       | Irms (Max.) (A)<br>额定电流 |      |
|--------------------------|---------------------------------|---------------------|-------|-------------------------|-------|-------------------------|------|
|                          |                                 | Max.                | Typ.  | Max.                    | Typ.  | Max.                    | Typ. |
| CKCSA4020-0.22 $\mu$ H/N | 0.22 $\pm$ 30%                  | 0.013               | 0.011 | 18.70                   | 22.00 | 8.20                    | 9.50 |
| CKCSA4020-0.47 $\mu$ H/N | 0.47 $\pm$ 30%                  | 0.022               | 0.018 | 13.40                   | 15.50 | 6.40                    | 7.40 |
| CKCSA4020-0.68 $\mu$ H/N | 0.68 $\pm$ 30%                  | 0.022               | 0.018 | 8.70                    | 11.10 | 6.40                    | 7.40 |
| CKCSA4020-1 $\mu$ H/M    | 1.0 $\pm$ 20%                   | 0.026               | 0.022 | 8.70                    | 11.10 | 5.80                    | 6.70 |
| CKCSA4020-1.5 $\mu$ H/M  | 1.5 $\pm$ 20%                   | 0.036               | 0.030 | 7.70                    | 9.60  | 5.20                    | 6.00 |
| CKCSA4020-2.2 $\mu$ H/M  | 2.2 $\pm$ 20%                   | 0.048               | 0.040 | 6.10                    | 7.60  | 4.30                    | 5.00 |
| CKCSA4020-3.3 $\mu$ H/M  | 3.3 $\pm$ 20%                   | 0.072               | 0.060 | 4.70                    | 5.90  | 3.45                    | 4.00 |
| CKCSA4020-4.7 $\mu$ H/M  | 4.7 $\pm$ 20%                   | 0.108               | 0.090 | 4.00                    | 4.90  | 2.85                    | 3.30 |
| CKCSA4020-6.8 $\mu$ H/M  | 6.8 $\pm$ 20%                   | 0.156               | 0.130 | 3.00                    | 4.20  | 2.40                    | 2.80 |
| CKCSA4020-10 $\mu$ H/M   | 10 $\pm$ 20%                    | 0.216               | 0.180 | 2.80                    | 3.50  | 2.00                    | 2.35 |

Remark: 1. Inductance Tested at 1MHz, 0.25Vrms (20°C);

2. Isat: DC current at which the inductance drops approximate 30% from its value without current;

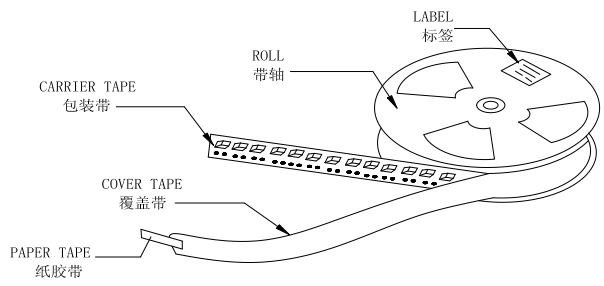
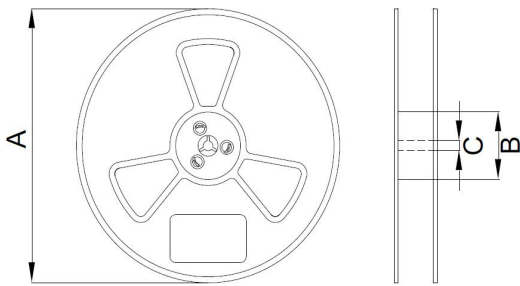
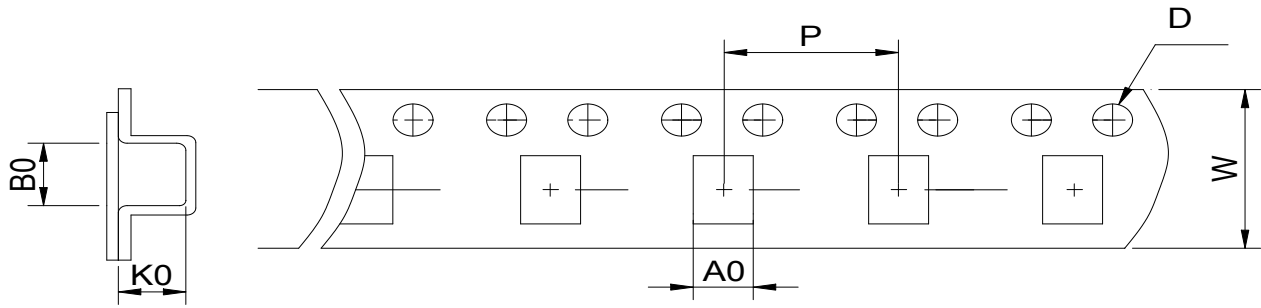
3. Irms: DC current that causes the temperature rise ( $\Delta T = 40^\circ\text{C}$ ) from 25°C ambient;

4. Operating Temperature :  $-40^\circ\text{C} \sim +125^\circ\text{C}$ ;

5. Absolute maximum voltage: DC 25V.



● PACKAGING SPECIFICATION :



| Type        | Tape Dimension (mm) |      |      |      |     |   | Reel Dimension (mm) |     |    | Quantity (Pcs/Reel) |
|-------------|---------------------|------|------|------|-----|---|---------------------|-----|----|---------------------|
|             | W                   | A0   | B0   | K0   | D   | P | A                   | B   | C  |                     |
| CKCSA201610 | 8                   | 1.9  | 2.3  | 1.2  | 1.5 | 4 | 178                 | 58  | 13 | 2000                |
| CKCS252010  | 8                   | 2.4  | 2.9  | 1.25 | 1.5 | 4 | 178                 | 58  | 13 | 2000                |
| CKCS252012  | 8                   | 2.35 | 2.65 | 1.6  | 1.5 | 4 | 178                 | 58  | 13 | 2000                |
| CKCS3012    | 8                   | 3.3  | 3.3  | 1.6  | 1.5 | 4 | 178                 | 58  | 13 | 2000                |
| CKCS4020    | 12                  | 4.3  | 4.3  | 2.4  | 1.5 | 8 | 330                 | 100 | 13 | 3000                |

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