

## SMD Power Inductors



### PRODUCT IDENTIFICATION

|       |    |       |       |       |       |       |
|-------|----|-------|-------|-------|-------|-------|
| KSE - | CD | 4D28  | NP    | -100  | N     | C     |
| <hr/> |    | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |
|       | a  | b     | c     | e     | f     | g     |

KSE - Brand

a: Series name

b: Product dimensions

c: Lead-free

e: Inductance Value

(1R0:1.0uH; 100: 10uH; 101:100uH)

f: Inductance Tolerance (K:10% ; M:20% ; N:30%)

g: Package (C: Tape & Reel, B: Bulk)

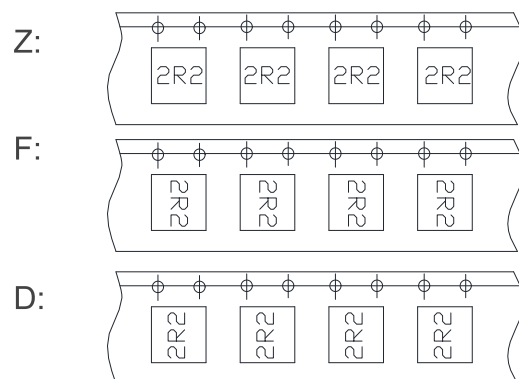
### FEATURES

- ◆ Various high power inductors are superior to be high saturation.
- ◆ Suitable for surface mounting equipment.
- ◆ Excellent solderability and high heat resistance.

### APPLICATIONS

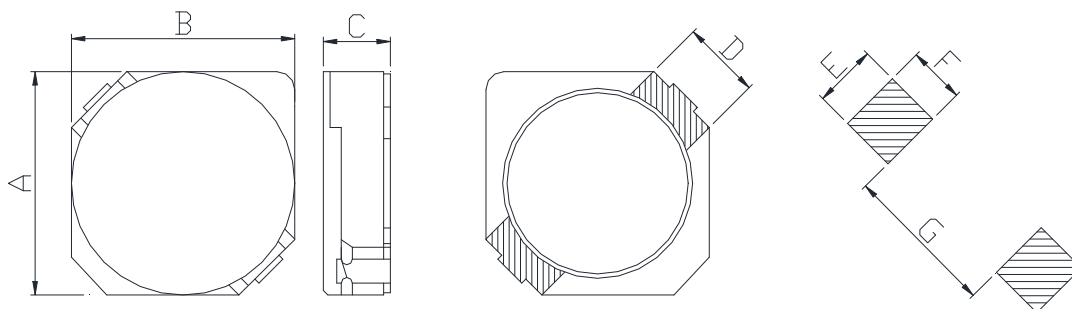
- ◆ Ideally used in Power supply for VTR, OA equipment, Digital camera, LCD television set notebook PC, etc as DC-DC Converter.

### ▶ Lettering direction



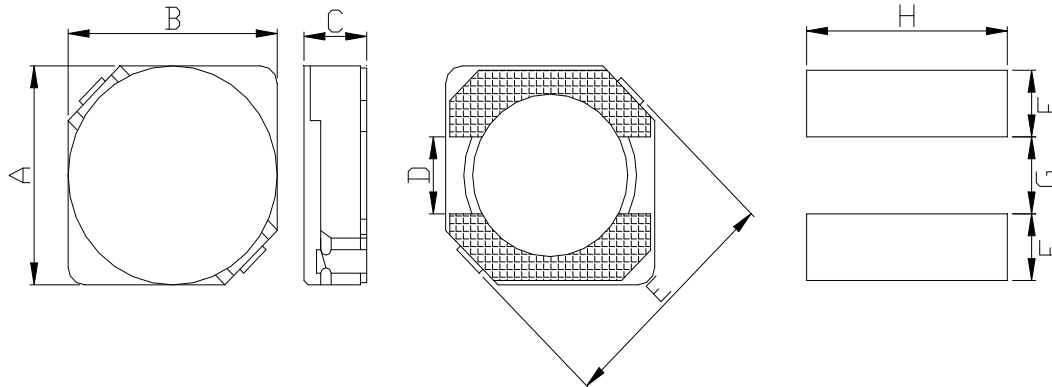
F- direction (typ.)

### SHAPES AND DIMENSIONS

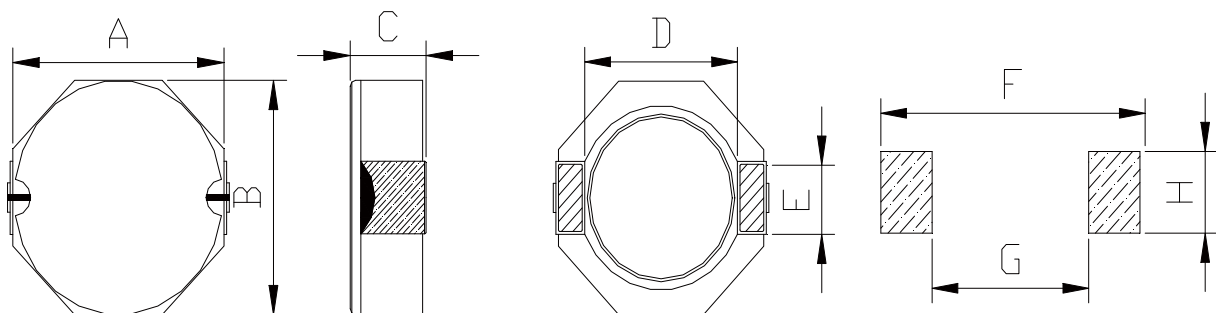


| Series | Dimensions(mm) |         |         |         |        |        |        |
|--------|----------------|---------|---------|---------|--------|--------|--------|
|        | A              | B       | C Max . | D       | E Ref. | F Ref. | G Ref. |
| 2D11   | 3.0±0.2        | 3.0±0.2 | 1.3     | 1.0±0.2 | 1.3    | 1.3    | 1.7    |
| 2D14   | 3.0±0.2        | 3.0±0.2 | 1.6     | 1.0±0.2 | 1.3    | 1.3    | 1.7    |
| 2D18   | 3.0±0.2        | 3.0±0.2 | 2.0     | 1.0±0.2 | 1.3    | 1.3    | 1.7    |
| 3D11   | 3.8±0.2        | 3.8±0.2 | 1.3     | 1.1±0.2 | 1.5    | 1.4    | 2.4    |

## SHAPES AND DIMENSIONS



| Series | Dimensions(mm) |         |         |      |     |        |        |        |
|--------|----------------|---------|---------|------|-----|--------|--------|--------|
|        | A              | B       | C Max . | D    | E   | F Ref. | G Ref. | H Ref. |
| 3D16   | 3.8±0.2        | 3.8±0.2 | 1.8     | 1.15 | 5.2 | 1.6    | 1.2    | 4.4    |
| 3D18   | 3.8±0.2        | 3.8±0.2 | 2.0     | 1.15 | 5.2 | 1.6    | 1.2    | 4.4    |
| 3D28   | 3.8±0.2        | 3.8±0.2 | 3.1     | 1.15 | 5.2 | 1.6    | 1.2    | 4.4    |
| 4D18   | 4.7±0.3        | 4.7±0.3 | 2.0     | 1.50 | 6.9 | 1.9    | 1.5    | 5.3    |
| 4D28   | 4.7±0.3        | 4.7±0.3 | 3.0     | 1.50 | 6.9 | 1.9    | 1.5    | 5.3    |
| 5D18   | 5.7±0.3        | 5.7±0.3 | 2.0     | 2.00 | 8.2 | 2.15   | 2.0    | 6.3    |
| 5D28   | 5.7±0.3        | 5.7±0.3 | 3.0     | 2.00 | 8.2 | 2.15   | 2.0    | 6.3    |
| 6D28   | 6.7±0.3        | 6.7±0.3 | 3.0     | 2.00 | 9.5 | 2.65   | 2.0    | 7.3    |
| 6D38   | 6.7±0.3        | 6.7±0.3 | 4.0     | 2.00 | 9.5 | 2.65   | 2.0    | 7.3    |



| Series | Dimensions(mm) |         |          |     |     |        |        |        |
|--------|----------------|---------|----------|-----|-----|--------|--------|--------|
|        | A              | B       | C Max .  | D   | E   | F Ref. | G Ref. | H Ref. |
| 8D28   | 8.0±0.3        | 8.0±0.3 | 3.0 Max. | 6.3 | 2.5 | 10.1   | 6.1    | 2.8    |
| 8D38   | 8.0±0.3        | 8.0±0.3 | 4.0 Max. | 6.3 | 2.5 | 10.1   | 6.1    | 2.8    |
| 8D43   | 8.0±0.3        | 8.0±0.3 | 4.5 Max. | 6.3 | 2.5 | 10.1   | 6.1    | 2.8    |

| Part Number        | L<br>( $\mu$ H) | Test Freq.<br>(KHz/V) | DCR Max.<br>( $\Omega$ ) | IDC Max.<br>(A) |
|--------------------|-----------------|-----------------------|--------------------------|-----------------|
| KSE-CD4D18NP-1R0NC | 1.0             | 100/0.25              | 0.045                    | 1.72            |
| KSE-CD4D18NP-2R2NC | 2.2             | 100/0.25              | 0.075                    | 1.32            |
| KSE-CD4D18NP-2R7NC | 2.7             | 100/0.25              | 0.105                    | 1.28            |
| KSE-CD4D18NP-3R3NC | 3.3             | 100/0.25              | 0.110                    | 1.04            |
| KSE-CD4D18NP-3R9NC | 3.9             | 100/0.25              | 0.155                    | 0.88            |
| KSE-CD4D18NP-4R7NC | 4.7             | 100/0.25              | 0.162                    | 0.84            |
| KSE-CD4D18NP-5R6NC | 5.6             | 100/0.25              | 0.170                    | 0.80            |
| KSE-CD4D18NP-6R8NC | 6.8             | 100/0.25              | 0.200                    | 0.76            |
| KSE-CD4D18NP-8R2NC | 8.2             | 100/0.25              | 0.245                    | 0.68            |
| KSE-CD4D18NP-100NC | 10              | 100/0.25              | 0.200                    | 0.61            |
| KSE-CD4D18NP-120NC | 12              | 100/0.25              | 0.210                    | 0.56            |
| KSE-CD4D18NP-150NC | 15              | 100/0.25              | 0.240                    | 0.50            |
| KSE-CD4D18NP-180NC | 18              | 100/0.25              | 0.338                    | 0.48            |
| KSE-CD4D18NP-220NC | 22              | 100/0.25              | 0.397                    | 0.41            |
| KSE-CD4D18NP-270NC | 27              | 100/0.25              | 0.441                    | 0.35            |
| KSE-CD4D18NP-330NC | 33              | 100/0.25              | 0.694                    | 0.32            |
| KSE-CD4D18NP-390NC | 39              | 100/0.25              | 0.709                    | 0.30            |
| KSE-CD4D18NP-470NC | 47              | 100/0.25              | 0.922                    | 0.28            |
| KSE-CD4D18NP-560NC | 56              | 100/0.25              | 1.080                    | 0.26            |
| KSE-CD4D18NP-680NC | 68              | 100/0.25              | 1.300                    | 0.24            |
| KSE-CD4D18NP-820NC | 82              | 100/0.25              | 1.550                    | 0.22            |
| KSE-CD4D18NP-101NC | 100             | 100/0.25              | 1.730                    | 0.20            |
| KSE-CD4D18NP-121NC | 120             | 100/0.25              | 2.390                    | 0.18            |
| KSE-CD4D18NP-151NC | 150             | 100/0.25              | 2.670                    | 0.15            |
| KSE-CD4D18NP-181NC | 180             | 100/0.25              | 4.000                    | 0.14            |

Note:

L - inductance

Tolerance: N:±30% , M:±20% , K:±10%

IDC:DC current at which the inductance drops approximate 35% from its value without current

| Part Number        | L<br>( $\mu$ H) | Test Freq.<br>(KHz/V) | DCR Max.<br>( $\Omega$ ) | IDC Max.<br>(A) |
|--------------------|-----------------|-----------------------|--------------------------|-----------------|
| KSE-CD4D28NP-1R2NC | 1.2             | 100/0.25              | 0.024                    | 2.56            |
| KSE-CD4D28NP-1R8NC | 1.8             | 100/0.25              | 0.028                    | 2.20            |
| KSE-CD4D28NP-2R2NC | 2.2             | 100/0.25              | 0.031                    | 2.04            |
| KSE-CD4D28NP-2R7NC | 2.7             | 100/0.25              | 0.043                    | 1.60            |
| KSE-CD4D28NP-3R3NC | 3.3             | 100/0.25              | 0.049                    | 1.57            |
| KSE-CD4D28NP-3R9NC | 3.9             | 100/0.25              | 0.065                    | 1.44            |
| KSE-CD4D28NP-4R7NC | 4.7             | 100/0.25              | 0.072                    | 1.32            |
| KSE-CD4D28NP-5R6NC | 5.6             | 100/0.25              | 0.101                    | 1.17            |
| KSE-CD4D28NP-6R8NC | 6.8             | 100/0.25              | 0.109                    | 1.12            |
| KSE-CD4D28NP-8R2NC | 8.2             | 100/0.25              | 0.118                    | 1.04            |
| KSE-CD4D28NP-100NC | 10              | 100/0.25              | 0.128                    | 1.00            |
| KSE-CD4D28NP-120NC | 12              | 100/0.25              | 0.132                    | 0.84            |
| KSE-CD4D28NP-150NC | 15              | 100/0.25              | 0.149                    | 0.76            |
| KSE-CD4D28NP-180NC | 18              | 100/0.25              | 0.166                    | 0.72            |
| KSE-CD4D28NP-220NC | 22              | 100/0.25              | 0.235                    | 0.70            |
| KSE-CD4D28NP-270NC | 27              | 100/0.25              | 0.261                    | 0.58            |
| KSE-CD4D28NP-330NC | 33              | 100/0.25              | 0.378                    | 0.56            |
| KSE-CD4D28NP-390NC | 39              | 100/0.25              | 0.384                    | 0.50            |
| KSE-CD4D28NP-470NC | 47              | 100/0.25              | 0.587                    | 0.48            |
| KSE-CD4D28NP-560NC | 56              | 100/0.25              | 0.625                    | 0.41            |
| KSE-CD4D28NP-680NC | 68              | 100/0.25              | 0.699                    | 0.35            |
| KSE-CD4D28NP-820NC | 82              | 100/0.25              | 0.915                    | 0.32            |
| KSE-CD4D28NP-101MC | 100             | 100/0.25              | 1.020                    | 0.29            |
| KSE-CD4D28NP-121MC | 120             | 100/0.25              | 1.270                    | 0.27            |
| KSE-CD4D28NP-151MC | 150             | 100/0.25              | 1.350                    | 0.24            |
| KSE-CD4D28NP-181MC | 180             | 100/0.25              | 1.540                    | 0.22            |
| KSE-CD4D28NP-221MC | 220             | 100/0.25              | 1.720                    | 0.20            |
| KSE-CD4D28NP-271MC | 270             | 100/0.25              | 1.950                    | 0.16            |
| KSE-CD4D28NP-331MC | 330             | 100/0.25              | 2.660                    | 0.14            |
| KSE-CD4D28NP-391MC | 390             | 100/0.25              | 2.830                    | 0.13            |

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