

SMD Power Inductors - SDR705K SERIES



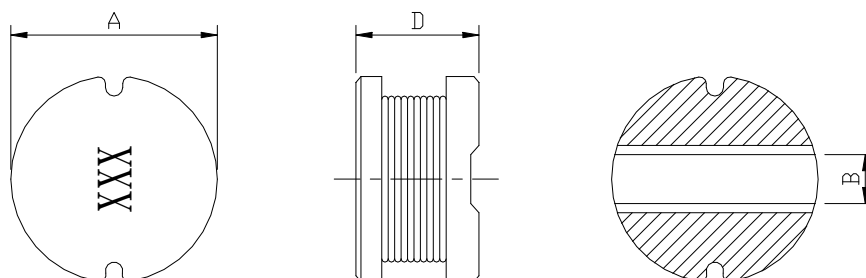
PART NUMBERING SYSTEM

(AEC-Q200)

| | | | | | |
|------------|--------------|---|-------------|---|-----------|
| SDR | 0705K | — | 221K | — | LF |
| TYPE | DIMENSIONS | | INDUCTANCE | | LEAD FREE |

SHAPES AND DIMENSIONS

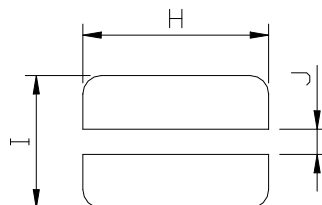
UNIT : mm



A=7.8 Max. B=2.6 Typ. D=5.3 Max.

RECOMMENDED PATTERNS

UNIT : mm



H=8.0 Max. I=8.0 Max. J=2.6 Max.

FEATURES

- Available for lead free and RoHS compliant
- Excellent solder ability and high heat resistance
- Inductance value from 1.5uH to 4,700uH
- Excellent terminal strength constructions
- Small diameter of only 7.8mm maximum and low profile of 5.3mm max.

APPLICATION

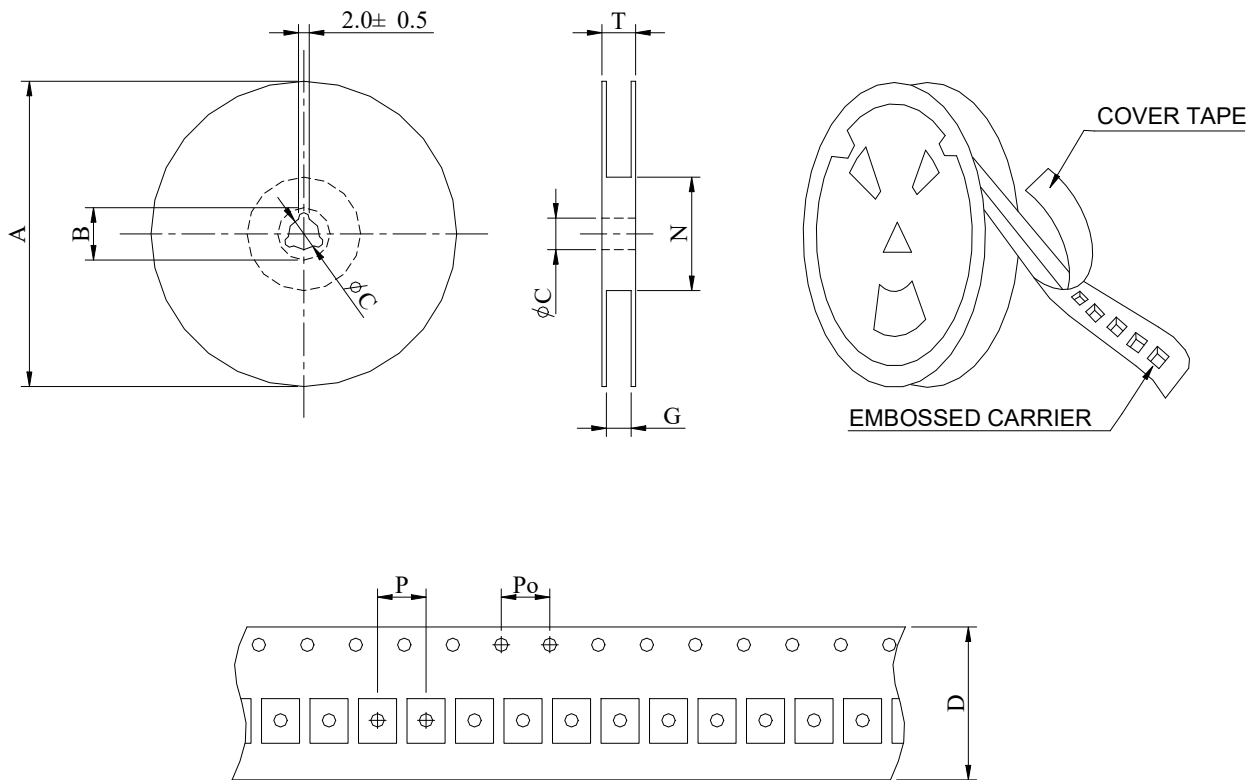
- Input / output of DC/DC converters
- Power supplies for LCD TVs , Car radios , Camcorders , Portable communication equipment

SPECIFICATION TABLE

| PART NUMBER | INDUCTANCE (μ H) | Q (Ref.) | DCR (Ω) (Max.) | IDC (A) (Max.) | TEST FREQ. (MHz) |
|------------------|--------------------------|-------------|----------------------------|---------------------|---------------------|
| SDR0705K-1R5M-LF | 1.5 \pm 20% | 32 | 0.02 | 9.10 | 7.96 |
| SDR0705K-2R5M-LF | 2.5 \pm 20% | 32 | 0.02 | 7.20 | 7.96 |
| SDR0705K-3R3M-LF | 3.3 \pm 20% | 32 | 0.02 | 6.30 | 7.96 |
| SDR0705K-3R9M-LF | 3.9 \pm 20% | 32 | 0.02 | 5.70 | 7.96 |
| SDR0705K-4R7M-LF | 4.7 \pm 20% | 31 | 0.03 | 5.00 | 7.96 |
| SDR0705K-5R6M-LF | 5.6 \pm 20% | 31 | 0.04 | 4.60 | 7.96 |
| SDR0705K-6R8M-LF | 6.8 \pm 20% | 30 | 0.04 | 4.10 | 7.96 |
| SDR0705K-7R5M-LF | 7.5 \pm 20% | 29 | 0.05 | 3.70 | 7.96 |
| SDR0705K-100M-LF | 10 \pm 20% | 25 | 0.07 | 3.20 | 2.52 |
| SDR0705K-120M-LF | 12 \pm 20% | 25 | 0.08 | 3.00 | 2.52 |
| SDR0705K-150M-LF | 15 \pm 20% | 25 | 0.09 | 2.70 | 2.52 |
| SDR0705K-180M-LF | 18 \pm 20% | 20 | 0.10 | 2.60 | 2.52 |
| SDR0705K-220M-LF | 22 \pm 20% | 20 | 0.11 | 2.30 | 2.52 |
| SDR0705K-270K-LF | 27 \pm 10% | 20 | 0.12 | 2.10 | 2.52 |
| SDR0705K-330K-LF | 33 \pm 10% | 15 | 0.14 | 1.90 | 2.52 |
| SDR0705K-390K-LF | 39 \pm 10% | 15 | 0.16 | 1.70 | 2.52 |
| SDR0705K-470K-LF | 47 \pm 10% | 15 | 0.20 | 1.60 | 2.52 |
| SDR0705K-560K-LF | 56 \pm 10% | 15 | 0.24 | 1.50 | 2.52 |
| SDR0705K-680K-LF | 68 \pm 10% | 15 | 0.30 | 1.30 | 2.52 |
| SDR0705K-820K-LF | 82 \pm 10% | 12 | 0.37 | 1.20 | 2.52 |
| SDR0705K-101K-LF | 100 \pm 10% | 12 | 0.45 | 1.10 | 0.796 |
| SDR0705K-121K-LF | 120 \pm 10% | 12 | 0.48 | 1.00 | 0.796 |
| SDR0705K-151K-LF | 150 \pm 10% | 12 | 0.68 | 0.85 | 0.796 |
| SDR0705K-181K-LF | 180 \pm 10% | 12 | 0.77 | 0.80 | 0.796 |
| SDR0705K-221K-LF | 220 \pm 10% | 12 | 0.96 | 0.80 | 0.796 |
| SDR0705K-271K-LF | 270 \pm 10% | 12 | 1.11 | 0.66 | 0.796 |
| SDR0705K-331K-LF | 330 \pm 10% | 12 | 1.26 | 0.58 | 0.796 |
| SDR0705K-391K-LF | 390 \pm 10% | 12 | 1.77 | 0.55 | 0.796 |
| SDR0705K-471K-LF | 470 \pm 10% | 12 | 1.96 | 0.50 | 0.796 |
| SDR0705K-561K-LF | 560 \pm 10% | 30 | 2.50 | 0.46 | 0.796 |
| SDR0705K-681K-LF | 680 \pm 10% | 29 | 2.80 | 0.42 | 0.796 |
| SDR0705K-821K-LF | 820 \pm 10% | 28 | 4.00 | 0.35 | 0.796 |
| SDR0705K-102K-LF | 1000 \pm 10% | 27 | 4.50 | 0.34 | 0.252 |
| SDR0705K-122K-LF | 1200 \pm 10% | 28 | 6.80 | 0.28 | 0.252 |
| SDR0705K-152K-LF | 1500 \pm 10% | 27 | 8.00 | 0.26 | 0.252 |
| SDR0705K-182K-LF | 1800 \pm 10% | 30 | 9.20 | 0.23 | 0.252 |
| SDR0705K-222K-LF | 2200 \pm 10% | 29 | 10.00 | 0.20 | 0.252 |
| SDR0705K-272K-LF | 2700 \pm 10% | 31 | 11.80 | 0.18 | 0.252 |
| SDR0705K-332K-LF | 3300 \pm 10% | 28 | 16.50 | 0.17 | 0.252 |
| SDR0705K-392K-LF | 3900 \pm 10% | 28 | 18.00 | 0.16 | 0.252 |
| SDR0705K-472K-LF | 4700 \pm 10% | 30 | 21.00 | 0.15 | 0.252 |

- DC current at which the inductance drops 10% (typ) from its value without current.
- Operating temperature range -40°C to +125°C , Electrical specifications at 25°C.

PACKAGING SPECIFICATION



| SERIES | Q'TY (PCS) | DIMENSIONS (m/m) | | | | | | | | |
|----------|---------------|------------------|-------|-------|----|-----------------|----------------|----|----|------|
| | | A | B±0.8 | C±0.5 | D | G ⁺⁰ | N ⁰ | P | Po | T |
| SDR0705K | 1000 | 330 | 21 | 13 | 16 | 18 | 50 | 12 | 4 | 22.4 |