

Wire-wound Metal Power Inductors MCOIL™ LSEN series

for General Electronic Equipment for Consumer

Code in front of Series have been extracted from Part number, which describes the segment of products, such as kinds and characteristics.

REFLOW

PART NUMBER

* Operating Temp.: -40~+125°C (Including self-generated heat)

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| L | S | E | N | C | 2 | 0 | 1 | 6 | K | K | T | 1 | R | 0 | M | |
| ① | ② | ③ | ④ | ⑤ | ⑥ | ⑦ | ⑧ | | | | | | | | | |

① Series

| Code | |
|--------------|-------------------------------------------------------------------------------|
| (1)(2)(3)(4) | |
| LSEN | Wire-wound Metal Power Inductor for General Electronic Equipment for Consumer |

(1) Product Group

| Code | |
|------|-----------|
| L | Inductors |

(2) Category

| Code | Recommended equipment | Quality Grade |
|------|-------------------------------------------|---------------|
| S | General Electronic Equipment for Consumer | 3 |

(3) Type

| Code | |
|------|--------------------------------------|
| E | Metal Wire-wound (High filling type) |

(4) Features, Characteristics

| Code | |
|------|----------------------|
| N | Standard Power choke |

② Features

| Code | Feature |
|------|----------------------------------------|
| C | Bottom electrode (Ag-resin × Sn-plate) |

③ Dimensions (L × W)

| Code | Dimensions (L × W) [mm] |
|------|-------------------------|
| 2016 | 2.0 × 1.6 |
| 2520 | 2.5 × 2.0 |

④ Dimensions (T)

| Code | Dimensions (T) [mm] |
|------|---------------------|
| KK | 1.0 |

⑤ Packaging

| Code | Packaging |
|------|-----------|
| T | Taping |

⑥ Nominal inductance

| Code (example) | Nominal inductance [μH] |
|----------------|-------------------------|
| R47 | 0.47 |
| 1R0 | 1.0 |
| 4R7 | 4.7 |

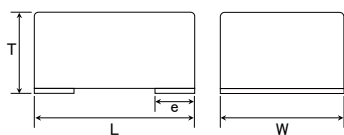
※R=Decimal point

⑦ Inductance tolerance

| Code | Inductance tolerance |
|------|----------------------|
| M | ±20% |

⑧ Internal code

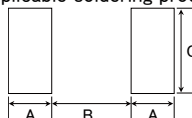
STANDARD EXTERNAL DIMENSIONS / STANDARD QUANTITY



Recommended Land Patterns

Surface Mounting

- Mounting and soldering conditions should be checked beforehand.
- Applicable soldering process to these products is reflow soldering only.



| Type | A | B | C |
|------|-----|-----|-----|
| 2016 | 0.7 | 0.8 | 1.8 |
| 2520 | 0.9 | 1.0 | 2.2 |

Unit: mm

| Type | L | W | T | e | Standard quantity [pcs] Taping |
|--------|--------------------------|--------------------------|------------------------|---------------------------|-----------------------------------|
| 2016KK | 2.0±0.2 (0.079±0.008) | 1.6±0.2 (0.063±0.008) | 1.0 max (0.039 max) | 0.5±0.3 (0.020±0.012) | 3000 |
| 2520KK | 2.5±0.2 (0.098±0.008) | 2.0±0.2 (0.079±0.008) | 1.0 max (0.039 max) | 0.65±0.3 (0.026±0.012) | 3000 |

Unit: mm (inch)

PART NUMBER

2016KK type 【Thickness: 1.0mm max.】

| New part number | Old part number (for reference) | EHS | Nominal inductance [μ H] | Inductance tolerance | Self-resonant frequency [MHz] (min.) | DC Resistance [Ω] (max.) | Rated current ※) [mA] (max.) | | Measuring frequency [MHz] |
|------------------|------------------------------------|------|----------------------------------|----------------------|--------------------------------------------|--------------------------------------|------------------------------|----------------------------------|------------------------------|
| | | | | | | | Saturation current Idc1 | Temperature rise current Idc2 | |
| LSENC2016KKTR47M | MEKK2016TR47M | RoHS | 0.47 | ±20% | — | 0.030 | 4,500 | 4,300 | 1 |
| LSENC2016KKTR68M | MEKK2016TR68M | RoHS | 0.68 | ±20% | — | 0.052 | 3,800 | 3,300 | 1 |
| LSENC2016KKT1R0M | MEKK2016T1R0M | RoHS | 1.0 | ±20% | — | 0.060 | 3,600 | 3,100 | 1 |
| LSENC2016KKT2R2M | MEKK2016T2R2M | RoHS | 2.2 | ±20% | — | 0.150 | 2,400 | 1,900 | 1 |

2520KK type 【Thickness: 1.0mm max.】

| New part number | Old part number (for reference) | EHS | Nominal inductance [μ H] | Inductance tolerance | Self-resonant frequency [MHz] (min.) | DC Resistance [Ω] (max.) | Rated current ※) [mA] (max.) | | Measuring frequency [MHz] |
|------------------|------------------------------------|------|----------------------------------|----------------------|--------------------------------------------|--------------------------------------|------------------------------|----------------------------------|------------------------------|
| | | | | | | | Saturation current Idc1 | Temperature rise current Idc2 | |
| LSENC2520KKTR33M | MEKK2520TR33M | RoHS | 0.33 | ±20% | — | 0.022 | 6,400 | 5,100 | 1 |
| LSENC2520KKTR47M | MEKK2520TR47M | RoHS | 0.47 | ±20% | — | 0.025 | 5,900 | 4,800 | 1 |
| LSENC2520KKT1R0M | MEKK2520T1R0M | RoHS | 1.0 | ±20% | — | 0.053 | 4,300 | 3,300 | 1 |
| LSENC2520KKT1R5M | MEKK2520T1R5M | RoHS | 1.5 | ±20% | — | 0.069 | 3,200 | 2,800 | 1 |
| LSENC2520KKT2R2M | MEKK2520T2R2M | RoHS | 2.2 | ±20% | — | 0.097 | 3,100 | 2,400 | 1 |
| LSENC2520KKT4R7M | MEKK2520T4R7M | RoHS | 4.7 | ±20% | — | 0.240 | 1,600 | 1,500 | 1 |

※) The saturation current value (Idc1) is the DC current value having inductance decrease down to 30%. (at 20°C)

※) The temperature rise current value (Idc2) is the DC current value having temperature increase up to 40°C. (at 20°C)

※) The rated current is the DC current value that satisfies both of current value saturation current value and temperature rise current value.

※) Idc2 Measurement board data

Material:FR4

Board dimensions: 100 × 50 × 1.6t mm

Pattern dimensions: 45 × 45 mm (Double side board)

Pattern thickness: 70 μ m