

Wire-wound Metal Power Inductors MCOIL™ LLAN series

for Medical Devices classified as GHTF Classes A or B (Japan Classes I or II)

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~+105°C (Including self-generated heat)

L	L	A	N	B	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)	
LLAN	Wire-wound Metal Power Inductor for Medical Devices classified as GHTF Classes A or B (Japan Classes I or II)

(1) Product Group

Code	
L	Inductors

(2) Category

Code	Recommended equipment	Quality Grade
L	Medical Devices classified as GHTF Classes A or B (Japan Classes I or II)	3

(3) Type

Code	
A	Metal Wire-wound

(4) Features, Characteristics

Code	
N	Standard Power choke

② Features

Code	Feature
B	L-shape electrode (Ag-resin × Sn-plate)

③ Dimensions (L × W)

Code	Type (inch)	Dimensions (L × W) [mm]
2016	2016 (0806)	2.0 × 1.6
2520	2520 (1008)	2.5 × 2.0

④ Dimensions (T)

Code	Dimensions (T) [mm]
KK	1.0
MK	1.2

⑤ Packaging

Code	Packaging
T	Taping

⑥ Nominal inductance

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

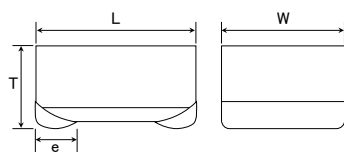
※R=Decimal point

⑦ Inductance tolerance

Code	Inductance tolerance
M	±20%

⑧ Internal code

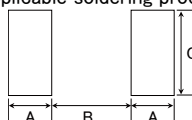
STANDARD EXTERNAL DIMENSIONS / STANDARD QUANTITY



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	0.8	1.2	2.0

Unit : mm

Type	L	W	T	e	Standard quantity [pcs] Taping
2016KK	2.0±0.1 (0.079±0.004)	1.6±0.1 (0.063±0.004)	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)	0.5±0.3 (0.020±0.012)	3000
2520MK	2.5±0.2 (0.098±0.008)	2.0±0.2 (0.079±0.008)	1.2 max (0.047 max)	0.5±0.3 (0.020±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	
LLANB2016KKTR24M	MAKK2016TR24M	RoHS	0.24	±20%	—	0.037	4,200	3,000	2
LLANB2016KKTR33M	MAKK2016TR33M	RoHS	0.33	±20%	—	0.040	3,600	3,200	2
LLANB2016KKTR47M	MAKK2016TR47M	RoHS	0.47	±20%	—	0.460	3,200	2,800	2
LLANB2016KKTR68M	MAKK2016TR68M	RoHS	0.68	±20%	—	0.065	2,500	2,500	2
LLANB2016KKT1R0M	MAKK2016T1R0M	RoHS	1.0	±20%	—	0.075	2,200	2,200	2
LLANB2016KKT1R5M	MAKK2016T1R5M	RoHS	1.5	±20%	—	0.130	1,600	1,650	2
LLANB2016KKT2R2M	MAKK2016T2R2M	RoHS	2.2	±20%	—	0.160	1,500	1,500	2
LLANB2016KKT3R3M	MAKK2016T3R3M	RoHS	3.3	±20%	—	0.255	1,150	1,200	2
LLANB2016KKT4R7M	MAKK2016T4R7M	RoHS	4.7	±20%	—	0.380	1,000	950	2

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	
LLANB2520KKTR33M	MAKK2520TR33M	RoHS	0.33	±20%	—	0.038	4,700	3,500	2
LLANB2520KKTR47M	MAKK2520TR47M	RoHS	0.47	±20%	—	0.046	3,900	3,200	2
LLANB2520KKTR68M	MAKK2520TR68M	RoHS	0.68	±20%	—	0.059	3,700	2,900	2
LLANB2520KKT1R0M	MAKK2520T1R0M	RoHS	1.0	±20%	—	0.072	2,700	2,500	2
LLANB2520KKT1R5M	MAKK2520T1R5M	RoHS	1.5	±20%	—	0.125	2,300	1,800	2
LLANB2520KKT2R2M	MAKK2520T2R2M	RoHS	2.2	±20%	—	0.156	1,900	1,500	2
LLANB2520KKT3R3M	MAKK2520T3R3M	RoHS	3.3	±20%	—	0.200	1,550	1,300	2
LLANB2520KKT4R7M	MAKK2520T4R7M	RoHS	4.7	±20%	—	0.300	1,300	1,100	2

2520MK type

【Thickness: 1.2mm 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	
LLANB2520MKTR47M	MAMK2520TR47M	RoHS	0.47	±20%	—	0.039	4,200	3,400	2
LLANB2520MKTR68M	MAMK2520TR68M	RoHS	0.68	±20%	—	0.048	3,200	3,200	2
LLANB2520MKT1R0M	MAMK2520T1R0M	RoHS	1.0	±20%	—	0.059	3,100	2,700	2
LLANB2520MKT2R2M	MAMK2520T2R2M	RoHS	2.2	±20%	—	0.110	2,000	1,900	2
LLANB2520MKT3R3M	MAMK2520T3R3M	RoHS	3.3	±20%	—	0.156	1,800	1,700	2
LLANB2520MKT4R7M	MAMK2520T4R7M	RoHS	4.7	±20%	—	0.260	1,500	1,300	2

※) 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 by 40°C. (at 20°C)

※) The rated current value is following either Idc1 or Idc2, which is the lower one.