# Wire-wound Metal Power Inductors MCOIL<sup>™</sup> LSEU 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	Ε	U	С	2	0	1	6	K	K	Т	1	R	0	М	
	(1	)		(2)		(3	3)		(2	4)	(5)		<b>6</b>		(7)	(8)

#### (1)Series

<u> </u>	
Code	
(1)(2)(3)(4)	
LSFII	Wire-wound Metal Power Inductor for General Electronic Equipment for Consumer

## (1) Product Group

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Code	
L	Inductors

#### (2) Category

(=) 0 0 0 0	=				
Code	Recommended equipment	Quality Grade			
S	General Electronic Equipment for Consumer	3			

## (3) Type Code

Code	
Е	Metal Wire-wound (High filling type)

## (4) Features, Characteristics

Code	
U	High strength power choke

#### 2Features

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

## 3Dimensions (L × W)

Code	Dimensions (L × W) [mm]
2012	2.0 × 1.25
2016	2.0 × 1.6
2520	2.5 × 2.0
3225	3.2 × 2.5

## 4 Dimensions (T)

Code	Dimensions(T)[mm]
HK	0.8
KK	1.0

## **5**Packaging

Code	Packaging		
Т	Taping		

#### **6** Nominal inductance

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

# 

# 7 Inductance tolerance

Code	Inductance tolerance
М	±20%

8 Internal code

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## ■STANDARD EXTERNAL DIMENSIONS / STANDARD QUANTITY

T e

Recommended Land Patterns

Surface Mounting

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



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Туре	Α	В	С						
2012	0.8	0.6	1.4						
2016	0.8	0.6	1.8						
2520	1.0	8.0	2.2						
3225	1.1	1.3	2.7						

Unit:mm

Туре	L	W	Т	е	Standard quantity[pcs] Taping
2012HK	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	0.8 max (0.031 max)	0.6±0.3 (0.024±0.012)	3000
2012KK	2.0±0.2 (0.079±0.008)	1.2±0.2 (0.047±0.008)	1.0 max (0.039 max)	0.6±0.3 (0.024±0.012)	3000
2016HK	2.0±0.2 (0.079±0.008)	1.6±0.2 (0.063±0.008)	0.8 max (0.031 max)	0.6±0.3 (0.024±0.012)	3000
2016KK	2.0±0.2 (0.079±0.008)	1.6±0.2 (0.063±0.008)	1.0 max (0.039 max)	0.6±0.3 (0.024±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)	0.8±0.3 (0.031±0.012)	3000
3225HK	3.2±0.2 (0.126±0.008)	2.5±0.2 (0.098±0.008)	0.8 max (0.031 max)	1.0±0.3 (0.039±0.012)	3000

Unit:mm(inch)

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#### ■PART NUMBER

2012HK type		[Thickn	[Thickness:0.8mm max.]						
	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.)		
New part number							Saturation current Idc1	Temperature rise current Idc2	Measuring frequency[MHz]
LSEUC2012HKTR47M	MEHK2012UR47M	RoHS	0.47	±20%	-	0.033	4,500	3,800	1

2012KK type [Thickness: 1.0mm max.] Self-resonant Rated current ※) [mA](max.) Measuring frequency[MHz] DC Resistance  $[\Omega]$  (max.) Old part number Nominal inductance EHS New part number Inductance tolerance frequency [MHz] (min.) Saturation current Idc1 Temperature rise current Idc2 (for reference) [ μ H] LSEUC2012KKTR33M MEKK2012UR33M RoHS 0.33 ±20% 0.024 5,800 4,600 LSEUC2012KKTR47M MEKK2012UR47M R₀HS 0.47 ±20% 0.027 5,000 4,300

	2016HK type		【Thickr	ness:0.8mm max.]						
		Old t b				Self-resonant	BO D	Rated current ※) [mA](max.)		M
	New part number	Old part number (for reference)	EHS	Nominal inductance [ μ H]	Inductance tolerance	frequency	DC Resistance [Ω](max.)	Saturation current	Temperature rise current	Measuring frequency[MHz]
		(101 1010101100)		L M 113		[MHz] (min.)	[ It ] (max.)	Idc1	Idc2	rrequeriey [ivii i2]
L	SEUC2016HKTR47M	MEHK2016UR47M	RoHS	0.47	±20%	ı	0.028	4,900	4,200	1
L	SEUC2016HKT1R0M	MEHK2016U1R0M	RoHS	1.0	±20%	ı	0.050	3,200	3,000	1

	2016KK type		Thickn	ess:1.0mm max.						
Ĭ		Old t b	EHS	Nominal inductance [ μ H]	Inductance tolerance	Self-resonant frequency [MHz] (min.)	DC Resistance [Ω](max.)	Rated current ※) [mA](max.)		Maranian
	New part number	Old part number (for reference)						Saturation current Idc1	Temperature rise current Idc2	Measuring frequency[MHz]
	LSEUC2016KKTR47M	MEKK2016UR47M	R₀HS	0.47	±20%	-	0.026	6,300	4,700	1
	LSEUC2016KKT1R0M	MEKK2016U1R0M	RoHS	1.0	±20%	-	0.048	4,100	3,500	1

	Thickn	ess:1.0mm max.						
Old part number	EHS	Nominal inductance [ μ H]		Self-resonant frequency [MHz] (min.)	DC Resistance [Ω](max.)			Measuring frequency[MHz]
(for reference)			Inductance tolerance			Saturation current Idc1	Temperature rise current Idc2	
MEKK2520U1R0M	RoHS	1.0	±20%	-	0.037	4,400	3,600	1
MEKK2520U2R2M	RoHS	2.2	±20%	-	0.076	3,000	2,500	1
MEKK2520U4R7M	RoHS	4.7	±20%	-	0.160	2,200	1,800	1
MEKK2520U6R8M	RoHS	6.8	±20%	-	0.265	1,200	1,300	1
MEKK2520U100M	RoHS	10	±20%	-	0.432	1,000	1,000	1
	MEKK2520U1R0M MEKK2520U2R2M MEKK2520U4R7M MEKK2520U6R8M	Old part number (for reference) EHS  MEKK2520U1R0M RoHS  MEKK2520U2R2M ROHS  MEKK2520U4R7M ROHS  MEKK2520U6R8M ROHS	(for reference)         EHS         [ μ H]           MEKK2520U1R0M         RoHS         1.0           MEKK2520U2R2M         RoHS         2.2           MEKK2520U4R7M         RoHS         4.7           MEKK2520U6R8M         RoHS         6.8	Old part number (for reference)         EHS         Nominal inductance [ μ H]         Inductance tolerance           MEKK2520U1R0M MEKK2520U2R2M MEKK2520U4R7M MEKK2520U4R7M MEKK2520U6R8M         RoHS RoHS RoHS RoHS         4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7 4.7	Cold part number (for reference)	Cold part number (for reference)		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

3225HK type		[Thickness: 0.8mm max.]							
011	Old a set seember		EHS Nominal inductance [ $\mu$ H]	Inductance tolerance	Self-resonant frequency [MHz] (min.)	DC Resistance [Ω](max.)	Rated current ※) [mA](max.)		
New part number	Old part number (for reference)	EHS					Saturation current	Temperature rise current	Measuring frequency[MHz]
							Idc1	Idc2	n oquonoy [minz]
LSEUC3225HKT1R0M	MEHK3225U1R0M	RoHS	1.0	±20%	-	0.043	5,200	4,200	1

 $\frak{\%}\)$  The saturation current value (Idc1) is the DC current value having inductance decrease down to 30%. (at 20°C)

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- XX) 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:  $100 \times 50 \times 1.6t$  mm

Pattern dimensions:  $45 \times 45~\text{mm}$  (Double side board)

Pattern thickness: 70  $\mu$  m

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