# **Cautions and Warnings**

Please be noted that this spec is only for reference if you have projects designed with the product number listed in. If you are looking for new project design-in, please find AWVF Series specification/datasheet on Chilisin website. Or you may find our sales contact for more information on old part number at your convenience. Appreciated your attention and understanding.



Automotive AEC-Q200

RoHS Compl Halogen Free REACH Com	9	Shield	ZRO     Magnetic     Resin LVx	Ferrite	High Current
■ Part Numbe	ering 404018	- 1R0	М	- AU	
Series Name	Dimensions Code (mm)	Inductance (uH)	Tolerance	Internal Code	
	201B12     2.0x1.6x1.2       252A10     2.5x2.0x1.02       252A12     2.5x2.0x1.2       303010     3.0x3.0x1.02       303012     3.0x3.0x1.12       303015     3.0x3.0x1.2       303015     3.0x3.0x1.12       303015     4.0x4.0x102       404015     4.0x4.0x102       404015     4.0x4.0x1.5       404026     4.0x4.0x2.6       505020     5.0x5.0x2.0       606028     6.0x6.0x2.8       808040     8.0x8.0x4.0	R47 0.47   1R0 1.0   101 100	M ±20% T ±30%		

This specification applies to Power Inductors for Automotive Electronics based on AEC-Q200 except for Power train and Safety.



#### ISO9001 | ISO14001 | TS16949

0.8

0.8

0.8

Recommended Land Pattern

### **Power Inductor LVF Series**

Automotive AEC-Q200

unit:mm

### LVF201B12 - AU Type

#### Dimensions



#### unit:mm

### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF201B12-R47 -AU	0.47	1MHz,200mV	0.051	2.70(2.40)	2.30(2.00)	20,30	A
LVF201B12-R68□-AU	0.68	1MHz,200mV	0.074	2.20(1.90)	2.00(1.80)	20,30	L
LVF201B12-1R5 -AU	1.5	1MHz,200mV	0.130	1.60(1.40)	1.40(1.30)	20,30	D
LVF201B12-6R8□-AU	6.8	1MHz,200mV	0.465	0.82(0.73)	0.78(0.70)	20,30	Н

#### Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current

4. Measure Equipment:

L: Agilent HP4287A+Agilent HP16197A RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A Irms: Agilent HP4284A



Automotive AEC-Q200

### LVF201B12 - AU Type

### Characteristics Graph





0.85

0.8

0.85

Recommended Land Pattern

2.2

## **Power Inductor LVF Series**

Automotive AEC-Q200

unit:mm

### LVF252A10 - AU Type

#### Dimensions



#### unit:mm

### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF252A10-R47 -AU	0.47	1MHz,200mV	0.045	2.80(2.50)	2.30(2.00)	20,30	А
LVF252A10-1R0□-AU	1.0	1MHz,200mV	0.066	1.90(1.70)	2.00(1.80)	20,30	В
LVF252A10-1R5□-AU	1.5	1MHz,200mV	0.095	1.70(1.50)	1.80(1.60)	20,30	С
LVF252A10-4R7□-AU	4.7	1MHz,200mV	0.285	0.92(0.82)	0.95(0.85)	20,30	F
LVF252A10-100□-AU	10	1MHz,200mV	0.535	0.60(0.54)	0.70(0.63)	20,30	Н
LVF252A10-150□-AU	15	1MHz,200mV	0.810	0.50(0.45)	0.55(0.49)	20,30	I
LVF252A10-220□-AU	22	1MHz,200mV	1.200	0.40(0.36)	0.44(0.39)	20,30	J

#### Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40  $^\circ \rm C$  temperature rise from 25  $^\circ \rm C$  ambient with current

4. Measure Equipment:

L: Agilent HP4287A+Agilent HP16197A RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A Irms: Agilent HP4284A



Automotive AEC-Q200

### LVF252A10 - AU Type

### Characteristics Graph





Automotive AEC-Q200

### LVF252A12 - AU Type

#### Dimensions



#### unit:mm

## Recommended Land Pattern



### Electrical Characteristics

(uH)	•	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
0.5	1MHz,200mV	0.028	3.50(3.10)	3.00(2.70)	20,30	В
1.0	1MHz,200mV	0.050	2.50(2.20)	2.40(2.10)	20,30	С
1.2	1MHz,200mV	0.053	2.10(1.80)	2.35(2.10)	20,30	D
1.5	1MHz,200mV	0.068	1.95(1.70)	2.30(2.00)	20,30	E
2.2	1MHz,200mV	0.080	1.80(1.60)	1.80(1.60)	20,30	F
3.3	1MHz,200mV	0.130	1.45(1.20)	1.50(1.30)	20,30	G
4.7	1MHz,200mV	0.190	1.10(0.98)	1.10(0.98)	20,30	Н
5.6	1MHz,200mV	0.210	1.05(0.93)	1.00(0.89)	20,30	Ι
6.8	1MHz,200mV	0.300	0.95(0.84)	0.80(0.71)	20,30	J
10	1MHz,200mV	0.385	0.88(0.78)	0.70(0.62)	20,30	К
15	1MHz,200mV	0.570	0.68(0.60)	0.62(0.54)	20,30	L
22	1MHz,200mV	0.810	0.55(0.48)	0.53(0.46)	20,30	М
	0.5       1.0       1.2       1.5       2.2       3.3       4.7       5.6       6.8       10       15	0.5     1MHz,200mV       1.0     1MHz,200mV       1.2     1MHz,200mV       1.5     1MHz,200mV       2.2     1MHz,200mV       3.3     1MHz,200mV       4.7     1MHz,200mV       5.6     1MHz,200mV       6.8     1MHz,200mV       10     1MHz,200mV       15     1MHz,200mV	0.5     1MHz,200mV     0.028       1.0     1MHz,200mV     0.050       1.2     1MHz,200mV     0.053       1.5     1MHz,200mV     0.068       2.2     1MHz,200mV     0.080       3.3     1MHz,200mV     0.130       4.7     1MHz,200mV     0.190       5.6     1MHz,200mV     0.210       6.8     1MHz,200mV     0.300       10     1MHz,200mV     0.385       15     1MHz,200mV     0.570	0.5     1MHz,200mV     0.028     3.50(3.10)       1.0     1MHz,200mV     0.050     2.50(2.20)       1.2     1MHz,200mV     0.053     2.10(1.80)       1.5     1MHz,200mV     0.068     1.95(1.70)       2.2     1MHz,200mV     0.080     1.80(1.60)       3.3     1MHz,200mV     0.130     1.45(1.20)       4.7     1MHz,200mV     0.190     1.10(0.98)       5.6     1MHz,200mV     0.210     1.05(0.93)       6.8     1MHz,200mV     0.300     0.95(0.84)       10     1MHz,200mV     0.385     0.88(0.78)       15     1MHz,200mV     0.570     0.68(0.60)	0.5     1MHz,200mV     0.028     3.50(3.10)     3.00(2.70)       1.0     1MHz,200mV     0.050     2.50(2.20)     2.40(2.10)       1.2     1MHz,200mV     0.053     2.10(1.80)     2.35(2.10)       1.5     1MHz,200mV     0.068     1.95(1.70)     2.30(2.00)       2.2     1MHz,200mV     0.080     1.80(1.60)     1.80(1.60)       3.3     1MHz,200mV     0.130     1.45(1.20)     1.50(1.30)       4.7     1MHz,200mV     0.190     1.10(0.98)     1.10(0.98)       5.6     1MHz,200mV     0.210     1.05(0.93)     1.00(0.89)       6.8     1MHz,200mV     0.300     0.95(0.84)     0.80(0.71)       10     1MHz,200mV     0.385     0.88(0.78)     0.70(0.62)       15     1MHz,200mV     0.570     0.68(0.60)     0.62(0.54)	0.5     1MHz,200mV     0.028     3.50(3.10)     3.00(2.70)     20,30       1.0     1MHz,200mV     0.050     2.50(2.20)     2.40(2.10)     20,30       1.2     1MHz,200mV     0.053     2.10(1.80)     2.35(2.10)     20,30       1.5     1MHz,200mV     0.068     1.95(1.70)     2.30(2.00)     20,30       2.2     1MHz,200mV     0.080     1.80(1.60)     1.80(1.60)     20,30       3.3     1MHz,200mV     0.130     1.45(1.20)     1.50(1.30)     20,30       4.7     1MHz,200mV     0.190     1.10(0.98)     1.10(0.98)     20,30       5.6     1MHz,200mV     0.210     1.05(0.93)     1.00(0.89)     20,30       6.8     1MHz,200mV     0.300     0.95(0.84)     0.80(0.71)     20,30       10     1MHz,200mV     0.385     0.88(0.78)     0.70(0.62)     20,30       15     1MHz,200mV     0.570     0.68(0.60)     0.62(0.54)     20,30

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

3.Irms for a 40  $^\circ\!\mathrm{C}$  temprature rise from 25  $^\circ\!\mathrm{C}$  ambient.

4. Measure Equipment:

L: Agilent/HP4287A+Agilent/HP16197A RDC: Digital Milliohm Meter Chroma 16502, or equivalent Isat: Agilent/HP4284A



Automotive AEC-Q200

### LVF252A12 - AU Type

### Characteristics Graph





#### ISO9001 | ISO14001 | TS16949

1.0

1

unit:mm

Recommended Land Pattern

3.2

### **Power Inductor LVF Series**

Automotive AEC-Q200

### LVF303010 - AU Type

#### Dimensions



## unit:mm

### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF303010-1R5□-AU	1.5	1MHz,200mV	0.085	1.80(1.60)	1.70(1.50)	20,30	1R5
LVF303010-2R2□-AU	2.2	1MHz,200mV	0.100	1.50(1.30)	1.40(1.20)	20,30	2R2
LVF303010-4R7□-AU	4.7	1MHz,200mV	0.205	1.00(0.90)	0.95(0.85)	20,30	4R7
LVF303010-6R8□-AU	6.8	1MHz,200mV	0.310	0.87(0.78)	0.85(0.76)	20,30	6R8
LVF303010-100□-AU	10	1MHz,200mV	0.430	0.64(0.57)	0.63(0.56)	20,30	100
LVF303010-150□-AU	15	1MHz,200mV	0.625	0.56(0.50)	0.55(0.49)	20,30	150
LVF303010-220 -AU	22	1MHz,200mV	0.870	0.47(0.42)	0.46(0.41)	20,30	220
LVF303010-470 -AU	47	1MHz,200mV	0.870	0.29(0.26)	0.28(0.25)	20,30	470

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

- 3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current
- 4. Measure Equipment:

L: Agilent HP4287A+Agilent HP16197A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A



Automotive AEC-Q200

### LVF303010 - AU Type

### Characteristics Graph





Automotive AEC-Q200

### LVF303012 - AU Type

#### Dimensions



#### unit:mm

### Recommended Land Pattern



#### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	lsat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF303012-2R2 -AU	2.2	1MHz,200mV	0.092	2.10(1.80)	2.00(1.80)	20,30	2R2
LVF303012-3R3 -AU	3.3	1MHz,200mV	0.130	1.84(1.60)	1.80(1.60)	20,30	3R3
LVF303012-4R7 -AU	4.7	1MHz,200mV	0.180	1.56(1.40)	1.52(1.30)	20,30	4R7
LVF303012-6R8 -AU	6.8	1MHz,200mV	0.250	1.32(1.10)	1.30(1.10)	20,30	6R8
LVF303012-100 -AU	10	1MHz,200mV	0.420	1.06(0.95)	1.00(0.90)	20,30	100
LVF303012-150 -AU	15	1MHz,200mV	0.560	0.82(0.73)	0.80(0.72)	20,30	150
LVF303012-220 -AU	22	1MHz,200mV	0.860	0.64(0.57)	0.62(0.55)	20,30	220
LVF303012-470 -AU	47	1MHz,200mV	1.820	0.49(0.44)	0.43(0.38)	20,30	470

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

- 3. Irms for a 40  $^\circ \rm C$  temperature rise from 25  $^\circ \rm C$  ambient with current
- 4. Measure Equipment:

L: Agilent HP4287A+Agilent HP16197A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A



Automotive AEC-Q200

### LVF303012 - AU Type

### Characteristics Graph





1.1

1 1.0

Recommended Land Pattern

3.2

## **Power Inductor LVF Series**

#### Automotive AEC-Q200

unit:mm

### LVF303015 - AU Type

#### Dimensions



#### unit:mm

### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	lsat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF303015-R47 -AU	0.47	1MHz,200mV	0.036	4.70(4.20)	4.00(3.60)	20,30	R47
LVF303015-1R0□-AU	1.0	1MHz,200mV	0.054	3.40(3.00)	3.00(2.70)	20,30	1R0
LVF303015-1R5□-AU	1.5	1MHz,200mV	0.063	3.00(2.70)	2.60(2.30)	20,30	1R5
LVF303015-2R2□-AU	2.2	1MHz,200mV	0.09	2.30(2.00)	2.00(1.80)	20,30	2R2
LVF303015-3R3□-AU	3.3	1MHz,200mV	0.125	1.90(1.70)	1.80(1.60)	20,30	3R3
LVF303015-4R7□-AU	4.7	1MHz,200mV	0.17	1.58(1.40)	1.52(1.30)	20,30	4R7
LVF303015-6R8□-AU	6.8	1MHz,200mV	0.235	1.34(1.20)	1.30(1.10)	20,30	6R8
LVF303015-100□-AU	10	1MHz,200mV	0.36	1.06(0.95)	1.00(0.90)	20,30	100
LVF303015-150□-AU	15	1MHz,200mV	0.55	0.90(0.81)	0.8(0.72)	20,30	150
LVF303015-220□-AU	22	1MHz,200mV	0.77	0.76(0.68)	0.65(0.58)	20,30	220
LVF303015-330□-AU	33	1MHz,200mV	0.93	0.65(0.58)	0.6(0.54)	20,30	330
LVF303015-470 -AU	47	1MHz,200mV	1.5	0.52(0.46)	0.42(0.37)	20,30	470
LVF303015-101□-AU	100	1MHz,200mV	2.7	0.36(0.32)	0.30(0.27)	20,30	101

#### Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

- 1. Operating temperature range  $-40^{\circ}C \sim 125^{\circ}C$
- 2. Isat for Inductance drop 30% from its value without current
- 3. Irms for a 40  $^\circ\!{\rm C}$  temperature rise from 25  $^\circ\!{\rm C}$  ambient with current
- 4. Measure Equipment:

L: Agilent HP4287A+Agilent HP16197A RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A Irms: Agilent HP4284A



Automotive AEC-Q200

### LVF303015 - AU Type

### Characteristics Graph





1.5

1.2

1.5

unit:mm

Recommended Land Pattern

4.2

### **Power Inductor LVF Series**

Automotive AEC-Q200

### LVF404012 - AU Type

### Dimensions



unit:mm

### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF404012-3R3 -AU	3.3	1MHz,200mV	0.072	1.5(1.30)	2.1(1.80)	20,30	3R3
LVF404012-100□-AU	10	1MHz,200mV	0.190	0.9(0.81)	1.2(1.00)	20,30	100

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range  $-40^{\circ}$ C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current

4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A



Automotive AEC-Q200

## LVF404012 - AU Type

### Characteristics Graph





1.5±0.2

**Automotive AEC-Q200** 

### LVF404015 - AU Type

#### Dimensions





unit:mm

1.3

#### Recommended Land Pattern



### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	lsat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF404015-R47 <sub>D</sub> -AU	0.47	1MHz,200mV	0.019	4.00(3.60)	4.2(3.70)	20,30	R47
LVF404015-1R5□-AU	1.5	1MHz,200mV	0.041	3.00(2.70)	3.2(2.80)	20,30	1R5
LVF404015-2R2□-AU	2.2	1MHz,200mV	0.054	2.30(2.00)	2.6(2.30)	20,30	2R2
LVF404015-4R7□-AU	4.7	1MHz,200mV	0.100	1.60(1.40)	1.8(1.60)	20,30	4R7
LVF404015-6R8□-AU	6.8	1MHz,200mV	0.138	1.40(1.20)	1.6(1.40)	20,30	6R8
LVF404015-100□-AU	10	1MHz,200mV	0.200	1.00(0.90)	1.2(1.00)	20,30	100
LVF404015-150□-AU	15	1MHz,200mV	0.300	0.92(0.82)	1.0(0.94)	20,30	150
LVF404015-220 <sub>-</sub> AU	22	1MHz,200mV	0.400	0.72(0.64)	0.85(0.76)	20,30	220

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

- 3. Irms for a 40°C temperature rise from 25°C ambient with current
- 4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A



Automotive AEC-Q200

### LVF404015 - AU Type

### Characteristics Graph





Recommended Land Pattern

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5

unit:mm

3.7

## **Power Inductor LVF Series**

Automotive AEC-Q200

### LVF404018 - AU Type

### Dimensions





unit:mm

### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	Isat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF404018-1R0□-AU	1.0	100kHz,1V	0.0265	4.20(3.70)	3.80(3.40)	20,30	1R0
LVF404018-1R5□-AU	1.5	100kHz,1V	0.0370	3.50(3.10)	3.20(2.80)	20,30	1R5
LVF404018-2R2□-AU	2.2	100kHz,1V	0.0470	3.00(2.70)	2.70(2.40)	20,30	2R2
LVF404018-3R3□-AU	3.3	100kHz,1V	0.0625	2.30(2.00)	2.10(1.80)	20,30	3R3
LVF404018-220□-AU	22	100kHz,1V	0.335	0.90(0.81)	0.88(0.79)	20,30	220

#### Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range  $-40^{\circ}$ C  $\sim 125^{\circ}$ C

2. Isat for Inductance drop 30% from its value without current

- 3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current
- 4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A



Automotive AEC-Q200

### LVF404018 - AU Type

### Characteristics Graph





#### ISO9001 | ISO14001 | TS16949

## **Power Inductor LVF Series**

Automotive AEC-Q200

### LVF404026 - AU Type

#### Dimensions







#### unit:mm

## Recommended Land Pattern



### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	lsat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF404026-1R0□-AU	1.0	100kHz,1V	0.030	5.00(4.50)	4.00(3.60)	20,30	1R0
LVF404026-1R5□-AU	1.5	100kHz,1V	0.035	4.20(3.70)	3.70(3.3)	20,30	1R5
LVF404026-2R2□-AU	2.2	100kHz,1V	0.045	3.80(3.40)	3.50(3.1)	20,30	2R2
LVF404026-3R3□-AU	3.3	100kHz,1V	0.067	3.00(2.70)	2.50(2.2)	20,30	3R3
LVF404026-4R7 -AU	4.7	100kHz,1V	0.092	2.60(2.30)	2.00(1.80)	20,30	4R7
LVF404026-5R6□-AU	5.6	100kHz,1V	0.110	2.30(2.00)	1.90(1.70)	20,30	5R6
LVF404026-6R8 -AU	6.8	100kHz,1V	0.130	2.00(1.80)	1.70(1.50)	20,30	6R8
LVF404026-100 -AU	10	100kHz,1V	0.188	1.90(1.70)	1.40(1.20)	20,30	100
LVF404026-150 -AU	15	100kHz,1V	0.240	1.40(1.30)	1.20(1.00)	20,30	150
LVF404026-220 -AU	22	100kHz,1V	0.330	1.20(1.00)	1.00(0.90)	20,30	220
LVF404026-330 -AU	33	100kHz,1V	0.480	1.00(0.90)	0.82(0.73)	20,30	330
LVF404026-470 -AU	47	100kHz,1V	0.735	0.88(0.79)	0.64(0.57)	20,30	470
LVF404026-101 -AU	100	100kHz,1V	1.380	0.58(0.52)	0.50(0.45)	20,30	101
LVF404026-331□-AU	330	100kHz,1V	4.600	0.31(0.27)	0.25(0.22)	20,30	331

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current

4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A Irms: Agilent HP4284A



Automotive AEC-Q200

### LVF404026 - AU Type

### Characteristics Graph





Automotive AEC-Q200

### LVF505020 - AU Type

### Dimensions







# 4.2

Recommended Land Pattern



### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	lsat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF505020-1R0 <sub>D</sub> -AU	1.0	100kHz,1V	0.018	6.0(5.4)	4.1(3.6)	20,30	1R0
LVF505020-1R5 -AU	1.5	100kHz,1V	0.023	4.9(4.4)	3.5(3.1)	20,30	1R5
LVF505020-1R8□-AU	1.8	100kHz,1V	0.026	4.1(3.6)	3.4(3.0)	20,30	1R8
LVF505020-2R2 -AU	2.2	100kHz,1V	0.030	4.0(3.6)	3.3(2.9)	20,30	2R2
LVF505020-3R6□-AU	3.6	100kHz,1V	0.050	3.1(2.7)	2.7(2.4)	20,30	3R6
LVF505020-3R9□-AU	3.9	100kHz,1V	0.053	2.9(2.6)	2.6(2.3)	20,30	3R9
LVF505020-4R7 -AU	4.7	100kHz,1V	0.060	2.7(2.4)	2.2(1.9)	20,30	4R7
LVF505020-6R8□-AU	6.8	100kHz,1V	0.093	2.2(1.9)	1.8(1.6)	20,30	6R8
LVF505020-100 -AU	10	100kHz,1V	0.125	1.8(1.6)	1.6(1.4)	20,30	100
LVF505020-150 -AU	15	100kHz,1V	0.195	1.4(1.2)	1.2(1.0)	20,30	150
LVF505020-220 -AU	22	100kHz,1V	0.265	1.2(1.0)	1.0(0.9)	20,30	220

Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range  $-40^{\circ}C \sim 125^{\circ}C$ 

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current

4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A Irms: Agilent HP4284A



Automotive AEC-Q200

### LVF505020 - AU Type

### Characteristics Graph





1.7

unit:mm

Recommended Land Pattern

57

## **Power Inductor LVF Series**

Automotive AEC-Q200

### LVF606020 - AU Type

#### Dimensions





### Electrical Characteristics

Inductance (uH)	Test Freq.	RDC (Ω)±30%	lsat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking	
4.7	100kHz,1V	0.058	3.0(2.7)	2.3(2.0)	20,30	4R7	
10	100kHz,1V	0.130	2.1(1.8)	1.6(1.4)	20,30	100	
15	100kHz,1V	0.195	1.6(1.4)	1.3(1.1)	20,30	150	
22	100kHz,1V	0.260	1.3(1.1)	1.1(0.99)	20,30	220	
47	100kHz,1V	0.510	0.9(0.8)	0.8(0.72)	20,30	470	
	(uH) 4.7 10 15 22	(uH)       4.7     100kHz,1V       10     100kHz,1V       15     100kHz,1V       22     100kHz,1V	(uH)     (Ω)±30%       4.7     100kHz,1V     0.058       10     100kHz,1V     0.130       15     100kHz,1V     0.195       22     100kHz,1V     0.260	(uH)     (Ω)±30%     Typ.(Max)       4.7     100kHz,1V     0.058     3.0(2.7)       10     100kHz,1V     0.130     2.1(1.8)       15     100kHz,1V     0.195     1.6(1.4)       22     100kHz,1V     0.260     1.3(1.1)	(uH)     (Ω)±30%     Typ.(Max)     Typ.(Max)       4.7     100kHz,1V     0.058     3.0(2.7)     2.3(2.0)       10     100kHz,1V     0.130     2.1(1.8)     1.6(1.4)       15     100kHz,1V     0.195     1.6(1.4)     1.3(1.1)       22     100kHz,1V     0.260     1.3(1.1)     1.1(0.99)	(uH)     (Ω)±30%     Typ.(Max)     Typ.(Max)     (±%)       4.7     100kHz,1V     0.058     3.0(2.7)     2.3(2.0)     20,30       10     100kHz,1V     0.130     2.1(1.8)     1.6(1.4)     20,30       15     100kHz,1V     0.195     1.6(1.4)     1.3(1.1)     20,30       22     100kHz,1V     0.260     1.3(1.1)     1.1(0.99)     20,30	

#### Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range  $-40^{\circ}$ C  $\sim 125^{\circ}$ C

2. Isat for Inductance drop 30% from its value without current

- 3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current
- 4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A



Automotive AEC-Q200

### LVF606020 - AU Type

### Characteristics Graph





Automotive AEC-Q200

### LVF606028 - AU Type

### Dimensions







#### unit:mm

### Recommended Land Pattern



### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	lsat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking		
LVF606028-1R0□-AU	1.0	100kHz,1V	0.012	7.9(7.10)	6.3(5.60)	20,30	1R0		
LVF606028-1R5□-AU	1.5	100kHz,1V	0.015	7.0(6.30)	5.5(4.90)	20,30	1R5		
LVF606028-2R2□-AU	2.2	100kHz,1V	0.020	6.0(5.40)	5.0(4.50)	20,30	2R2		
LVF606028-4R7□-AU	4.7	100kHz,1V	0.036	4.0(3.60)	3.4(3.00)	20,30	4R7		
LVF606028-6R8□-AU	6.8	100kHz,1V	0.048	3.2(2.80)	3.0(2.70)	20,30	6R8		

#### Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range - 40°C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

- 3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current
- 4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent Isat: Agilent HP4284A



Automotive AEC-Q200

### LVF606028 - AU Type

### Characteristics Graph





Recommended Land Pattern

7.5

2.5

3.4

2.5

unit:mm

## **Power Inductor LVF Series**

Automotive AEC-Q200

### LVF808040 - AU Type

#### Dimensions







### Electrical Characteristics

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)±30%	lsat(A) Typ.(Max)	Irms(A) Typ.(Max)	Tolerance (±%)	Marking
LVF808040-4R7□-AU	4.7	100kHz,1V	0.020	6.8(6.00)	5.5(4.80)	20,30	4R7
LVF808040-100□-AU	10	100kHz,1V	0.038	5.0(4.40)	3.8(3.30)	20,30	100
LVF808040-150 -AU	15	100kHz,1V	0.057	4.0(3.50)	3.2(2.70)	20,30	150
LVF808040-220□-AU	22	100kHz,1V	0.082	3.4(2.90)	2.7(2.30)	20,30	220

#### Note: When ordering, please specify tolerance code. Tolerance: M=±20% / T=±30%

1. Operating temperature range  $-40^{\circ}$ C ~ 125°C

2. Isat for Inductance drop 30% from its value without current

3. Irms for a 40  $^\circ\!\mathrm{C}$  temperature rise from 25  $^\circ\!\mathrm{C}$  ambient with current

4. Measure Equipment:

L: Agilent HP4284A+Agilent HP42841A

RDC: DIGITAL MILLINHM METER CHROMA 16502, or equivalent

Isat: Agilent HP4284A



Automotive AEC-Q200

### LVF808040 - AU Type

### Characteristics Graph





Automotive AEC-Q200

### Packaging

**Tape Dimensions** 





**Reel Dimensions** 









#### Dimensions in mm

ТҮРЕ		Tape Dimensions									Reel Dimensions					Quantity	
ITPE	Fig	<sup>9</sup> A0 B0 K0 D E F W P P0 P2						A	в	С	D	Е	PCS / Reel				
LVF201B12	1	1.9	2.2	1.3	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LVF252A10	1	2.4	2.7	1.15	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LVF252A12	1	2.40	2.70	1.35	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LVF303010	1	3.2	3.2	1.4	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LVF303012	1	3.20	3.20	1.40	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LVF303015	1	3.15	3.15	1.60	1.55	1.75	3.5	8.1	4	4	2	180	60	13	14.4	8.4	2000
LVF404012	2	4.25	4.25	1.3	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
LVF404015	2	4.25	4.25	1.7	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	1000
LVF404018	2	4.25	4.25	2.10	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	800
LVF404026	2	4.25	4.25	3	1.55	1.75	5.5	12	8	4	2	178	60	13	13.2	-	500
LVF505020	2	5.25	5.25	2.2	1.55	1.75	5.5	12	8	4	2	330	100	13	13.4	-	2000
LVF606020	2	6.25	6.25	2.2	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	2000
LVF606028	2	6.25	6.25	3.00	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	1500
LVF808040	2	8.25	8.25	4.15	1.55	1.75	7.5	16	12	4	2	330	100	13	16	-	1000