

# Wire-wound Ferrite Power Inductors LAXH series for Automotive Powertrain and Safety

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

AEC-Q200 Grade 1 (we conduct the evaluation at the test condition of Grade 1.)

\*Operating environment Temp:-40~125°C

REFLOW

AEC-Q200

## ■ PART NUMBER

\*Operating Temp. : -40~150°C(Including self-generated heat)

L	A	X	H	G	6	0	6	0	Y	E	L	1	0	0	M	M	R
①	②	③	④	⑤	⑥	⑦	⑧										

### ① Series

Code (1)(2)(3)(4)	
LAXH	Wire-wound Ferrite Power Inductor for Automotive Powertrain and Safety

### (1) Product Group

Code	
L	Inductors

### (3) Type

Code	
X	Ferrite Wire-wound (Drum type)

### (2) Category

Code	Recommended equipment	Quality Grade
A	Automotive Electronic Equipment (Powertrain, Safety)	1

### (4) Features, Characteristics

Code	
H	Hybrid power choke

### ② Features

Code	Feature
G	Bottom electrode (Ag × solder) for fillet high TEMP

### ⑤ Packaging

Code	Packaging
L	Taping

### ③ Dimensions (L × W)

Code	Dimensions (L × W) [mm]
6060	6.0 × 6.0

### ⑥ Nominal inductance

Code (example)	Nominal inductance [μH]
2R2	2.2
100	10
101	100

※R=Decimal point

### ④ Dimensions (H)

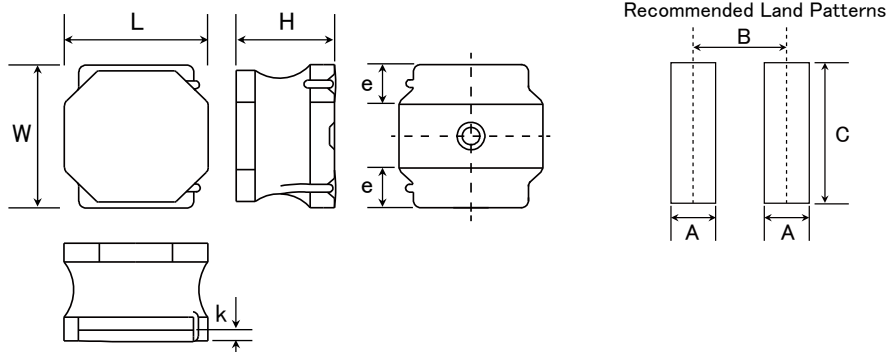
Code	Dimensions (H) [mm]
YE	4.5

### ⑦ Inductance tolerance

Code	Inductance tolerance
M	±20%
N	±30%

### ⑧ Internal code

■ STANDARD EXTERNAL DIMENSIONS / STANDARD QUANTITY



Type	A	B	C
6060	2.4	5.0	4.8

Unit: mm

Type	L	W	H	e	k(ref)	Standard quantity [pcs] Taping
6060YE	6.0±0.2 (0.236±0.008)	6.0±0.2 (0.236±0.008)	4.5 max (0.177 max)	1.65±0.3 (0.053±0.012)	0.3 min (0.012 min)	1500

Unit: mm(inch)

► This catalog contains the typical specification only due to the limitation of space. When you consider the purchase of our products, please check our specification.  
For details of each product (characteristics graph, reliability information, precautions for use, and so on), see our Web site (<http://www.ty-top.com/>).

■ PART NUMBER

• All the Wire-wound Ferrite Power Inductors of the catalog lineup are RoHS compliant.

Notes)

- The exchange of individual specifications is necessary depending on your application and/or circuit condition. Please contact TAIYO YUDEN's official sales channel.
- For Automotive (AEC-Q200 Qualified) products for POWERTRAIN, and SAFETY. Please check "Automotive Application Guide" for further details before using the products.

< AEC-Q200 : AEC-Q200 qualified >

All the Wire-wound Ferrite Power Inductors for Automotive products are tested based on the test conditions and methods defined in AEC-Q200 by family item. Please consult with TAIYO YUDEN's official sales channel for the details of the product specifications and AEC-Q200 test results, etc., and please review and approve the product specifications before ordering.

● 6060YE type

New part number	Old part number (for reference)	Nominal inductance [μH]	Inductance tolerance	DC Resistance [mΩ] Max (Typ)	Rated current ※) [A]			Measuring frequency [MHz]
					Saturation current Idc1 Max (Typ)	Temperature rise current① Idc2 Max (Typ)	Temperature rise current② Idc2 Max (Typ)	
LAXHG6060YEL1R0NMRR	NRT6045T 1R0NMRR	1	±30%	13 (10)	13.50 (14.50)	5.00 (6.50)	6.20 (7.00)	0.1
LAXHG6060YEL1R5NMRR	NRT6045T 1R5NMRR	1.5	±30%	19 (14)	10.00 (11.00)	4.00 (5.10)	5.50 (6.40)	0.1
LAXHG6060YEL2R2NMRR	NRT6045T 2R2NMRR	2.2	±30%	23 (18)	8.50 (9.50)	3.50 (4.30)	4.40 (5.10)	0.1
LAXHG6060YEL3R3MMRR	NRT6045T 3R3MMRS	3.3	±20%	27.6(23)	7.00 (7.50)	3.10 (3.80)	4.00 (4.50)	0.1
LAXHG6060YEL4R7MMRR	NRT6045T 4R7MMRR	4.7	±20%	36 (30)	6.00 (6.50)	2.60 (3.30)	3.60 (3.90)	0.1
LAXHG6060YEL6R8MMRR	NRT6045T 6R8MMRR	6.8	±20%	52 (43)	5.10 (5.60)	2.25 (2.85)	3.10 (3.50)	0.1
LAXHG6060YEL100MMRR	NRT6045T 100MMRS	10	±20%	60 (50)	4.00 (4.40)	2.00 (2.65)	2.60 (3.20)	0.1
LAXHG6060YEL220MMRR	NRT6045T 220MMRR	22	±20%	132 (110)	2.50 (3.00)	1.40 (1.80)	1.80 (2.00)	0.1
LAXHG6060YEL470MMRR	NRT6045T 470MMRR	47	±20%	272 (227)	1.55 (1.70)	0.85 (1.00)	1.20 (1.30)	0.1
LAXHG6060YEL101MMRR	NRT6045T 101MMRR	100	±20%	600 (475)	1.05 (1.15)	0.65 (0.80)	0.85 (0.95)	0.1
LAXHG6060YEL151MMRR	NRT6045T 151MMRR	150	±20%	816 (680)	0.83 (0.90)	0.48 (0.65)	0.76 (0.85)	0.1
LAXHG6060YEL221MMRR	NRT6045T 221MMRR	220	±20%	1320 (1100)	0.70 (0.75)	0.42 (0.55)	0.57 (0.65)	0.1
LAXHG6060YEL471MMRR	NRT6045T 471MMRR	470	±20%	2760 (2300)	0.45 (0.50)	0.27 (0.35)	0.38 (0.45)	0.1

※) 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)① is the DC current value having temperature increase up to 25°C. (at 20°C)

※) The temperature rise current value (Idc2)② is the DC current value having temperature increase up to 40°C. (at 20°C)

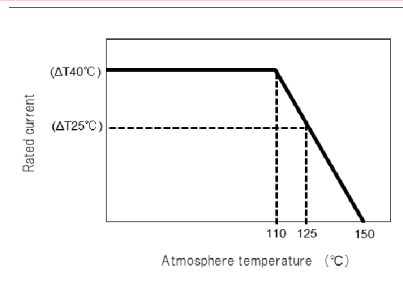
※) The rated current is the DC current value that satisfies both of current value saturation current value and temperature rise current value.

■ Derating of Rated Current

● LAXH series

Derating of current is necessary for LAXH series depending on ambient temperature.

Please refer to the chart shown below for appropriate derating of current.



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