Wire-wound Ferrite Inductors for Class D Amplifier LCXA for Automotive Body & Chassis and Infotainment

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

REFLOW

AEC-Q200

AEC-Q200 Grade 3 (we conduct the evaluation at the test condition of Grade 3.)
*Operating environment Temp:-40～85℃

■PART NUMBER

*Operating Temp. : -40～125℃(Including self-generated heat)

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

①Series

Code (1)(2)(3)(4)	
LCXA	Wire-wound Ferrite Inductors for Class D Amplifiers for Automotive Body & Chassis and Infotainment

(1) Product Group

Code	
L	Inductors

(2) Category

Code	Recommended equipment	Quality Grade
C	Automotive Electronic Equipment (Body & Chassis, Infotainment)	2

(3) Type

Code	
X	Ferrite Wire-wound (Drum type)

(4) Features, Characteristics

Code	
A	For audio filters

②Features

Code	Feature
F	Bottom electrode (Ag×solder) for fillet

③Dimensions(L×W)

Code	Dimensions(L×W)[mm]
6060	6.0×6.0

④Dimensions(H)

Code	Dimensions(H)[mm]
YE	4.5

⑤Packaging

Code	Packaging
L	Taping

⑥Nominal inductance

Code (example)	Nominal inductance[μH]
3R3	3.3

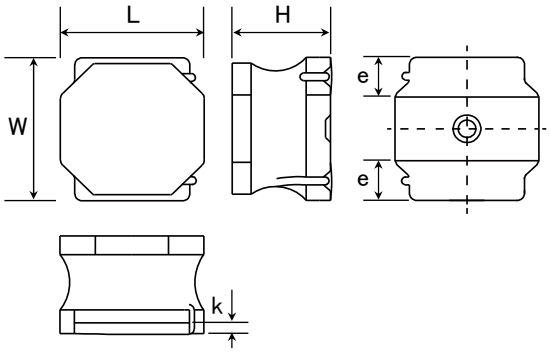
※R=Decimal point

⑦Inductance tolerance

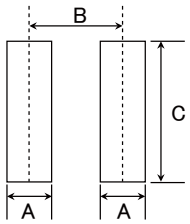
Code	Inductance tolerance
M	±20%

⑧Internal code

■STANDARD EXTERNAL DIMENSIONS / STANDARD QUANTITY



Recommended Land Patterns



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)

■PART NUMBER

・All the Wire-wound Ferrite Inductors for Class D Amplifier 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 BODY & CHASSIS, and INFOTAINMENT. Please check "Automotive Application Guide" for further details before using the products.

＜ AEC-Q200 ：AEC-Q200 qualified＞

All the Wire-wound Ferrite Inductors for Class D Amplifier 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.

●Inductors for Class D Amplifier LCXAF6060YE 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 current Idc2 Max (Typ)	
LCXAF6060YEL3R3MMR	NRC6045T 3R3MMRUV	3.3	±20%	32 (26)	9.00 (9.60)	3.80 (4.30)	0.1

※) The saturation current value (Idc1) is the DC current value having inductance decrease down to 30%. (at 20℃)
※) The temperature rise current value (Idc2)② is the DC current value having temperature increase up to 40℃. (at 20℃)
※) 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

●LCXA

Derating of current is necessary for LCXA depending on ambient temperature.
Please refer to the chart shown below for appropriate derating of current.