

Wire-wound Ferrite Bead Inductors for Power Lines LCMC/LCMG series 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.

AEC-Q200 Grade 3 (we conduct the evaluation at the test condition of Grade 3.)

*Operating environment Temp: -40~85°C

REFLOW

AEC-Q200

PART NUMBER

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

L	C	M	C	C	3	2	1	6	1	1	T	8	0	0	R	G	
①	②	③	④	⑤	⑥	⑦	⑧										

①Series

Code (1)(2)(3)(4)	
LCMC	Wire-wound Ferrite Bead Inductors for Power Lines for Automotive Body & Chassis and Infotainment
LCMG	Wire-wound Ferrite Bead Inductors for Power Lines 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

②Features

Code	Feature
A	Standard (20MHz)
C	Wave-shaping
G	For GHz noise

③Dimensions (L × W)

Code	Type (inch)	Dimensions (L × W) [mm]
1608	1608 (0603)	1.6 × 0.8
2012	2012 (0805)	2.0 × 1.25
2016	2016 (0806)	2.0 × 1.6
3216	3216 (1206)	3.2 × 1.6
3225	3225 (1210)	3.2 × 2.5
4516	4516 (1806)	4.5 × 1.6
4525	4525 (1810)	4.5 × 2.5

④Dimensions (T)

Code	Dimensions (T) [mm]
08	0.8
	0.85
11	1.1
16	1.6
25	2.5

(3) Type

Code	
M	Ferrite Wire-wound bead

(4) Features, Characteristics

Code	
C	High current
G	High frequency

⑤Packaging

Code	Packaging
T	Taping

⑥Nominal impedance

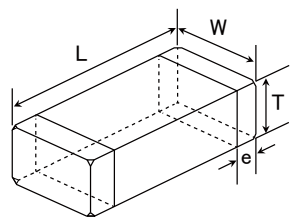
Code (example)	Nominal impedance [Ω]
330	33
221	220
102	1000

⑦Impedance tolerance

Code	Impedance tolerance
R	±25%
N	±30%

⑧Internal code

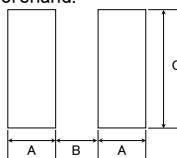
STANDARD EXTERNAL DIMENSIONS / STANDARD QUANTITY



Recommended Land Patterns

Surface Mounting

• Mounting and soldering conditions should be checked beforehand.



Type	A	B	C
1608	1.0	1.0	1.0
2012	1.4	1.2	1.65
2016	1.4	1.2	2.0
3216	1.4	2.2	2.0
3225	1.4	2.2	2.9
4516	1.75	3.5	2.0
4525	1.75	3.5	2.9

Unit: mm

Type	L	W	T	e	Standard quantity [pcs]	
					Paper tape	Embossed tape
160808 *1 (0603)	1.6±0.2 (0.063±0.008)	0.8±0.2 (0.031±0.008)	0.8±0.2 (0.031±0.008)	0.3±0.2 (0.012±0.008)	4000	—
160808 *2 (0603)	1.6±0.1 (0.063±0.004)	0.8±0.1 (0.031±0.004)	0.8±0.1 (0.031±0.004)	0.3±0.15 (0.012±0.006)	4000	—
201208 (0805)	2.0±0.2 (0.079±0.008)	1.25±0.2 (0.049±0.008)	0.85±0.2 (0.033±0.008)	0.5±0.3 (0.020±0.012)	4000	—
201616 (0806)	2.0±0.2 (0.079±0.008)	1.6±0.2 (0.063±0.008)	1.6±0.2 (0.063±0.008)	0.5±0.3 (0.020±0.012)	—	2000
321611 (1206)	3.2±0.3 (0.126±0.012)	1.6±0.2 (0.063±0.008)	1.1±0.2 (0.043±0.008)	0.5±0.3 (0.020±0.012)	—	2000
321616 (1206)	3.2±0.3 (0.126±0.012)	1.6±0.2 (0.063±0.008)	1.6±0.2 (0.063±0.008)	0.5±0.3 (0.020±0.012)	—	2000
322525 (1210)	3.2±0.3 (0.126±0.012)	2.5±0.3 (0.098±0.012)	2.5±0.3 (0.098±0.012)	0.5±0.3 (0.020±0.012)	—	1000
451611 (1806)	4.5±0.3 (0.177±0.012)	1.6±0.2 (0.063±0.008)	1.1±0.2 (0.043±0.008)	0.5±0.3 (0.020±0.012)	—	2000
451616 (1806)	4.5±0.3 (0.177±0.012)	1.6±0.2 (0.063±0.008)	1.6±0.2 (0.063±0.008)	0.5±0.3 (0.020±0.012)	—	2000
452525 (1810)	4.5±0.4 (0.177±0.016)	2.5±0.3 (0.098±0.012)	2.5±0.3 (0.098±0.012)	0.9±0.6 (0.035±0.024)	—	1000

*1 LCMC, *2 LCMG

Unit: mm (inch)

PART NUMBER

- All the Wire-wound Ferrite Bead Inductors for Power Lines 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 Bead Inductors for Power Lines 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.

Standard type

● 1608 (0603) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMCC160808T280NG	FB MJ1608HS280NTV	28	$\pm 30\%$	100	0.007	4.0	0.8 ± 0.2
LCMCA160808T230NG	FB MJ1608HM230NTV	23	$\pm 30\%$	100	0.007	4.0	0.8 ± 0.2

● 2012 (0805) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMCC201208T250NG	FB MJ2125HS250NTV	25	$\pm 30\%$	100	0.004	6.0	0.85 ± 0.2
LCMCC201208T420RG	FB MJ2125HS420-TV	42	$\pm 25\%$	100	0.008	4.0	0.85 ± 0.2
LCMCA201208T210NG	FB MJ2125HM210NTV	21	$\pm 30\%$	100	0.004	6.0	0.85 ± 0.2
LCMCA201208T330RG	FB MJ2125HM330-TV	33	$\pm 25\%$	100	0.008	4.0	0.85 ± 0.2
LCMCG201208T8R0NG	FB MJ2125HL8R0NTV	8	$\pm 30\%$	100	0.008	4.0	0.85 ± 0.2

● 3216 (1206) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMCC321611T480NG	FB MJ3216HS480NTV	48	$\pm 30\%$	100	0.005	6.0	1.1 ± 0.2
LCMCC321611T800RG	FB MJ3216HS800-TV	80	$\pm 25\%$	100	0.010	4.0	1.1 ± 0.2
LCMCA321611T380NG	FB MJ3216HM380NTV	38	$\pm 30\%$	100	0.005	6.0	1.1 ± 0.2
LCMCA321611T600RG	FB MJ3216HM600-TV	60	$\pm 25\%$	100	0.010	4.0	1.1 ± 0.2
LCMCG321611T160NG	FB MJ3216HL160NTV	16	$\pm 30\%$	100	0.012	4.0	1.1 ± 0.2

● 4516 (1806) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMCC451611T720NG	FB MJ4516HS720NTV	72	$\pm 30\%$	100	0.007	6.0	1.1 ± 0.2
LCMCC451611T111RG	FB MJ4516HS111-TV	110	$\pm 25\%$	100	0.014	4.0	1.1 ± 0.2
LCMCA451611T560NG	FB MJ4516HM560NTV	56	$\pm 30\%$	100	0.007	6.0	1.1 ± 0.2
LCMCA451611T900RG	FB MJ4516HM900-TV	90	$\pm 25\%$	100	0.014	4.0	1.1 ± 0.2
LCMCG451611T230NG	FB MJ4516HL230NTV	23	$\pm 30\%$	100	0.014	3.5	1.1 ± 0.2

High impedance type (GHz Band)

● 1608 (0603) type

New part number	Old part number (for reference)	Nominal impedance Measuring frequency 100 [MHz]		Nominal impedance Measuring frequency 1 [GHz]		DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
		(Ω)	tolerance	(Ω)	tolerance			
LCMGA160808T470RG	FB MH1608HM470-TV	47	$\pm 25\%$	75	$\pm 40\%$	0.020	3.5	0.8 ± 0.1
LCMGA160808T600RG	FB MH1608HM600-TV	60	$\pm 25\%$	100	$\pm 40\%$	0.025	3.0	0.8 ± 0.1
LCMGA160808T101RG	FB MH1608HM101-TV	100	$\pm 25\%$	170	$\pm 40\%$	0.035	2.5	0.8 ± 0.1
LCMGA160808T151RG	FB MH1608HM151-TV	150	$\pm 25\%$	270	$\pm 40\%$	0.050	2.1	0.8 ± 0.1
LCMGA160808T221RG	FB MH1608HM221-TV	220	$\pm 25\%$	370	$\pm 40\%$	0.070	1.8	0.8 ± 0.1
LCMGA160808T331RG	FB MH1608HM331-TV	330	$\pm 25\%$	520	$\pm 40\%$	0.130	1.2	0.8 ± 0.1
LCMGA160808T471RG	FB MH1608HM471-TV	470	$\pm 25\%$	750	$\pm 40\%$	0.150	1.0	0.8 ± 0.1
LCMGA160808T601RG	FB MH1608HM601-TV	600	$\pm 25\%$	900	$\pm 40\%$	0.170	0.9	0.8 ± 0.1
LCMGA160808T102RG	FB MH1608HM102-TV	1000	$\pm 25\%$	1200	$\pm 40\%$	0.350	0.6	0.8 ± 0.1
LCMGG160808T300RG	FB MH1608HL300-TV	30	$\pm 25\%$	120	$\pm 40\%$	0.028	2.6	0.8 ± 0.1
LCMGG160808T600RG	FB MH1608HL600-TV	60	$\pm 25\%$	220	$\pm 40\%$	0.045	2.1	0.8 ± 0.1
LCMGG160808T121RG	FB MH1608HL121-TV	120	$\pm 25\%$	540	$\pm 40\%$	0.130	1.2	0.8 ± 0.1
LCMGG160808T221RG	FB MH1608HL221-TV	220	$\pm 25\%$	950	$\pm 40\%$	0.170	0.9	0.8 ± 0.1
LCMGG160808T331RG	FB MH1608HL331-TV	330	$\pm 25\%$	1200	$\pm 40\%$	0.210	0.8	0.8 ± 0.1
LCMGG160808T471RG	FB MH1608HL471-TV	470	$\pm 25\%$	1500	$\pm 40\%$	0.350	0.6	0.8 ± 0.1
LCMGG160808T601RG	FB MH1608HL601-TV	600	$\pm 25\%$	1800	$\pm 40\%$	0.450	0.5	0.8 ± 0.1

※) The rated current is the value of current at which the temperature of the element is increased by 40 deg.

PART NUMBER

High impedance type

2012 (0805) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMGA201208T800RG	FB MH2012HM800-TV	80	$\pm 25\%$	100	0.025	2.7	0.85 ± 0.2
LCMGA201208T121RG	FB MH2012HM121-TV	120	$\pm 25\%$	100	0.032	2.5	0.85 ± 0.2
LCMGA201208T221RG	FB MH2012HM221-TV	220	$\pm 25\%$	100	0.060	2.0	0.85 ± 0.2
LCMGA201208T331RG	FB MH2012HM331-TV	330	$\pm 25\%$	100	0.080	1.8	0.85 ± 0.2

2016 (0806) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMGA201616T121NG	FB MH2016HM121NTV	120	$\pm 30\%$	100	0.015	4.5	1.6 ± 0.2
LCMGA201616T251NG	FB MH2016HM251NTV	250	$\pm 30\%$	100	0.050	2.0	1.6 ± 0.2

3216 (1206) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMGA321616T221NG	FB MH3216HM221NTV	220	$\pm 30\%$	100	0.020	4.0	1.6 ± 0.2
LCMGA321616T501NG	FB MH3216HM501NTV	500	$\pm 30\%$	100	0.070	2.0	1.6 ± 0.2

3225 (1210) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMGA322525T601NG	FB MH3225HM601NTV	600	$\pm 30\%$	100	0.042	3.0	2.5 ± 0.3
LCMGA322525T102NG	FB MH3225HM102NTV	1000	$\pm 30\%$	100	0.100	2.0	2.5 ± 0.3
LCMGA322525T202NG	FB MH3225HM202NTV	2000	$\pm 30\%$	100	0.130	1.2	2.5 ± 0.3

4516 (1806) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMGA451616T851NG	FB MH4516HM851NTV	850	$\pm 30\%$	100	0.100	1.5	1.6 ± 0.2

4525 (1810) type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMGA452525T102NG	FB MH4525HM102NTV	1000	$\pm 30\%$	100	0.060	3.0	2.5 ± 0.3
LCMGA452525T162NG	FB MH4525HM162NTV	1600	$\pm 30\%$	100	0.130	2.0	2.5 ± 0.3

High current type

New part number	Old part number (for reference)	Nominal impedance (Ω)	Impedance tolerance	Measuring frequency [MHz]	DC Resistance [Ω] (max.)	Rated current [A] (max.)	Thickness [mm]
LCMCC160808T220NGR	FB MJ1608HS220NTW	22	$\pm 30\%$	100	0.004	7.5	0.8 ± 0.2
LCMCC160808T280NGR	FB MJ1608HS280NTW	28	$\pm 30\%$	100	0.006	6.0	0.8 ± 0.2
LCMCA160808T180NGR	FB MJ1608HM180NTW	18	$\pm 30\%$	100	0.004	7.5	0.8 ± 0.2
LCMCA160808T230NGR	FB MJ1608HM230NTW	23	$\pm 30\%$	100	0.006	6.0	0.8 ± 0.2

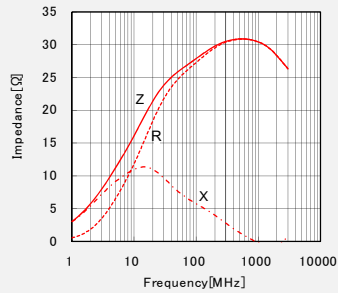
※) The rated current is the value of current at which the temperature of the element is increased by 40 deg.

ELECTRICAL CHARACTERISTICS

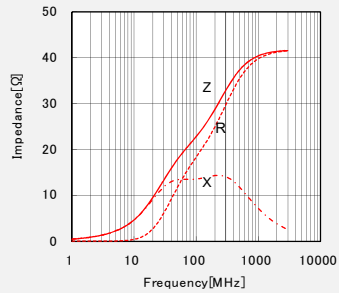
Standard type

■ 1608 type

LCMCC160808T280NG

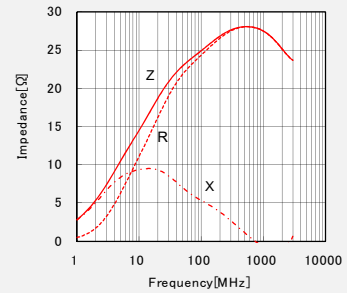


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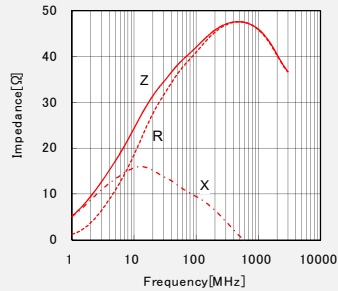


■ 2012 type

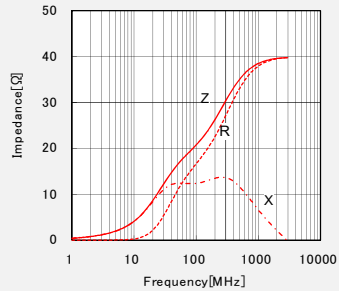
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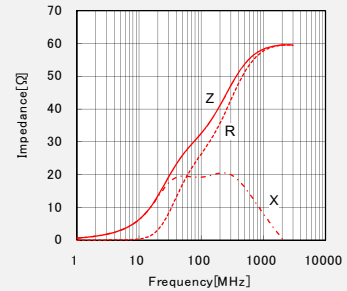
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LCMCA201208T210NG

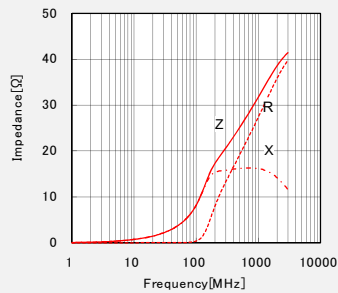


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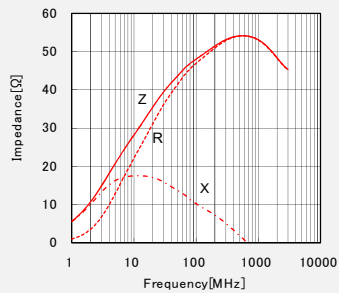


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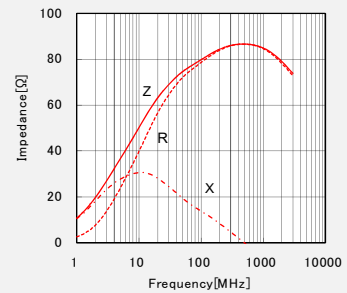
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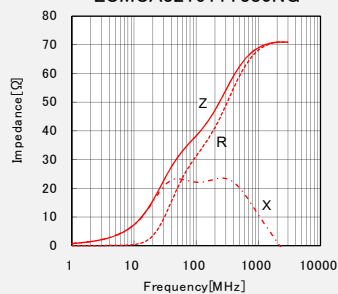
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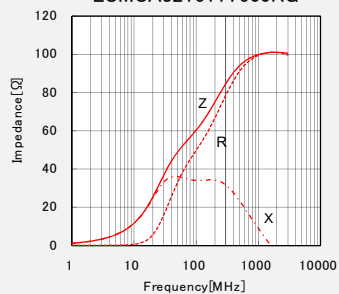
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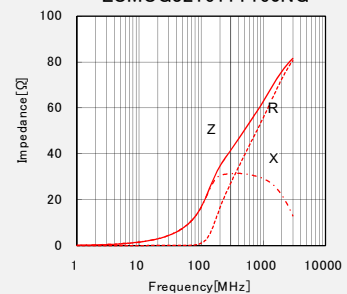
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LCMCA321611T600RG

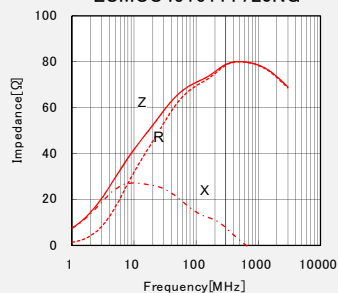


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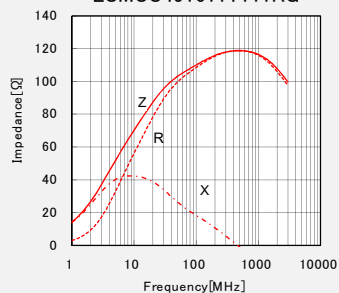


■ 4516 type

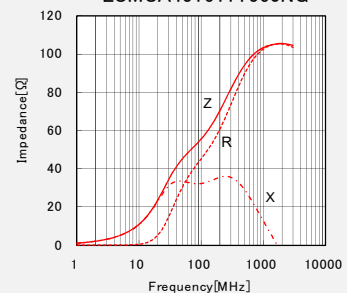
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LCMCA451611T560NG



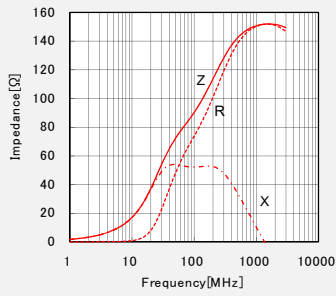
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For details of each product (characteristics graph, reliability information, precautions for use, and so on), see our Web site (<http://www.ty-top.com/>).

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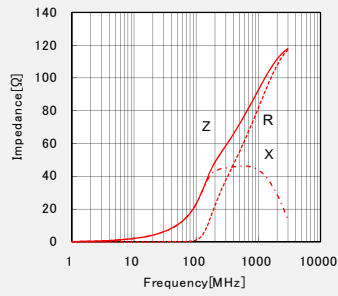
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ELECTRICAL CHARACTERISTICS

LCMCA451611T900RG



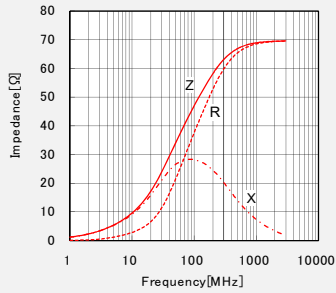
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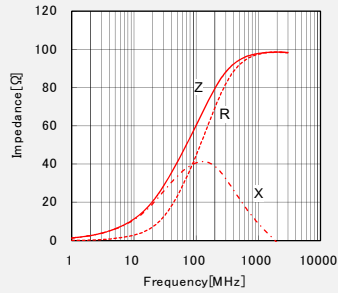
High impedance type(GHz Band)

■ 1608 type

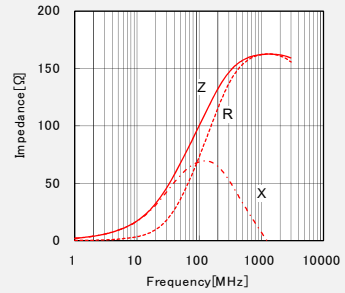
LCMGA160808T470RG



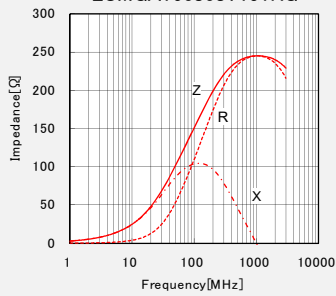
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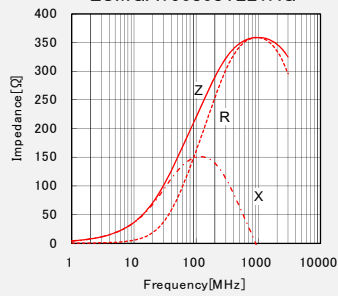
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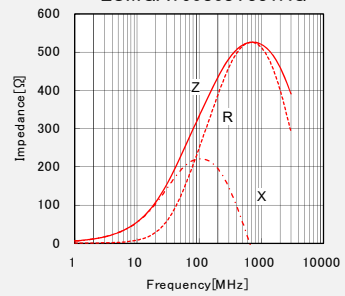
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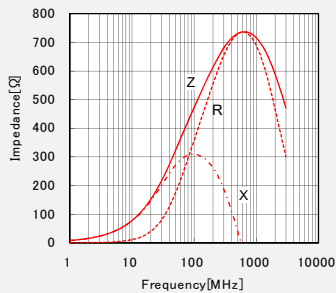
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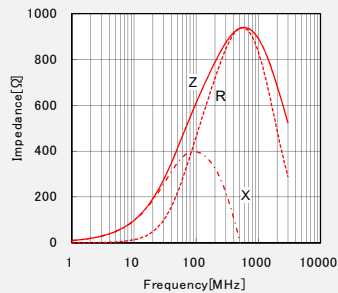
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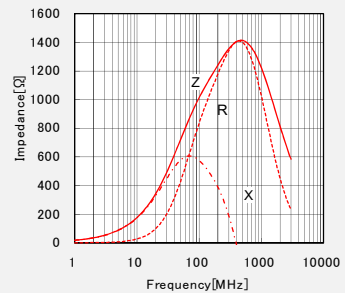
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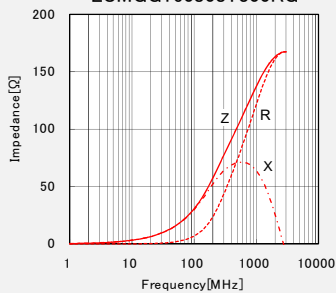
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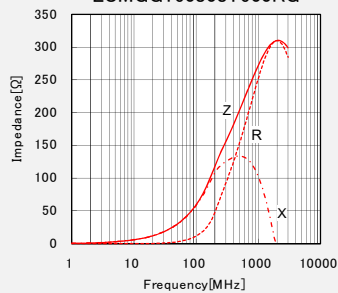
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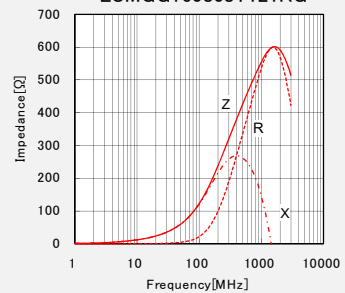
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LCMGG160808T600RG



LCMGG160808T121RG



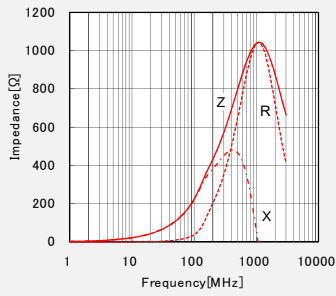
► This catalog contains the typical specification only due to the limitation of space. When you consider the purchase of our products, please check our specification.
For details of each product (characteristics graph, reliability information, precautions for use, and so on), see our Web site (<http://www.ty-top.com/>).

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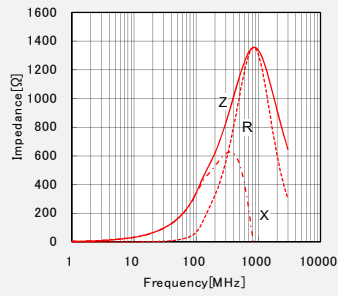
chipbeads_FBM_C_char_e-E11R01

ELECTRICAL CHARACTERISTICS

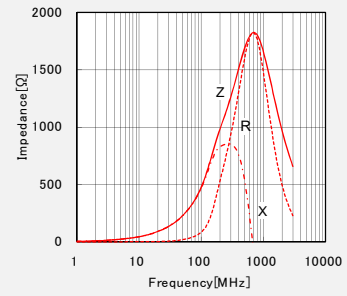
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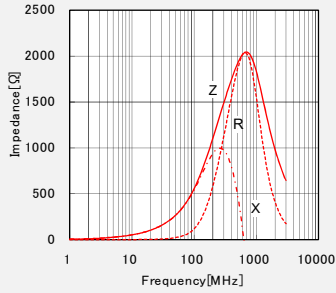
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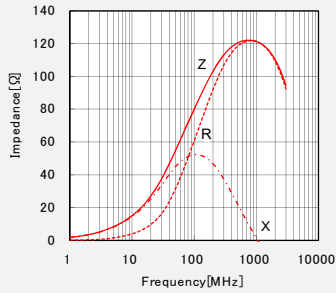
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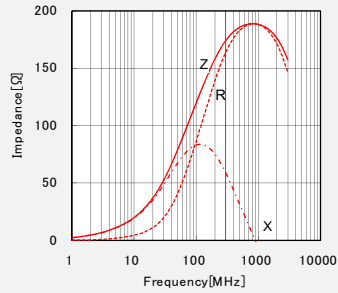
High impedance type

■ 2012 type

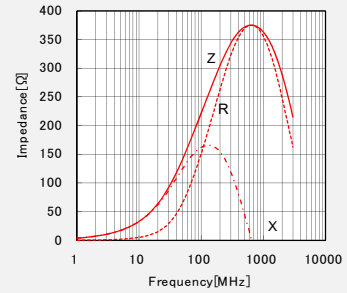
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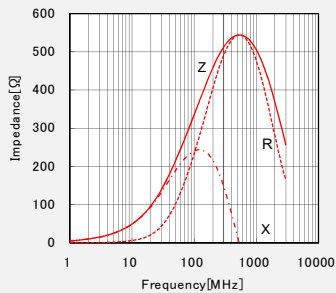
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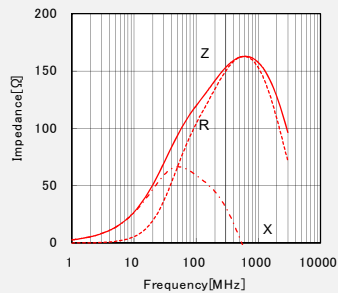


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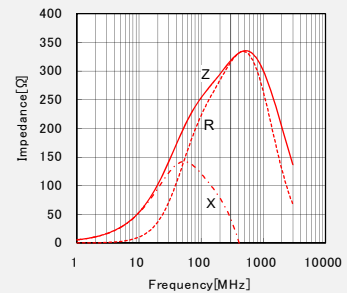


■ 2016 type

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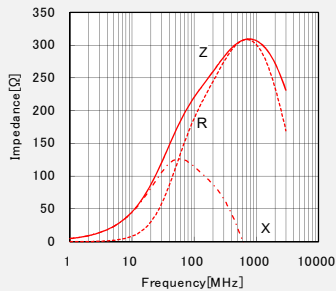


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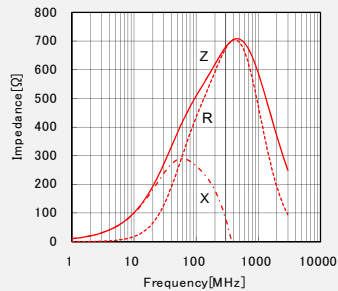


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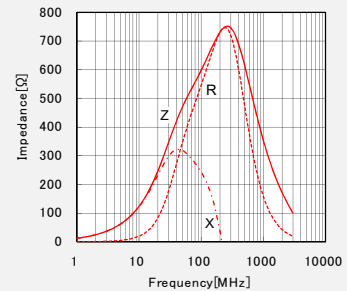


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■ 3225 type

LCMGA322525T601NG

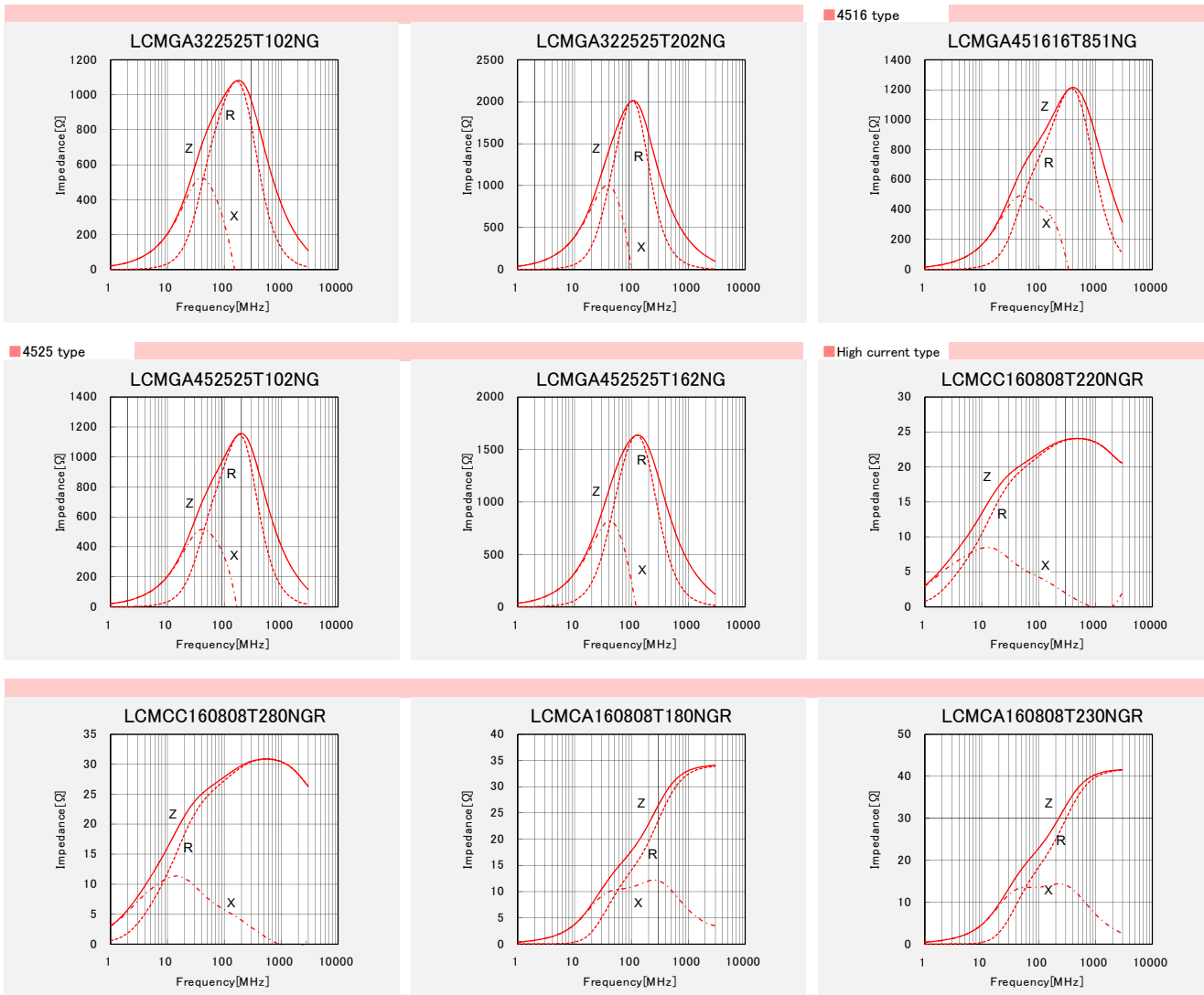


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ELECTRICAL CHARACTERISTICS



Derating of Rated Current

LCMC/LCMG serieise

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

