

Wire-wound Ferrite Bead Inductors for Power Lines LMMC/LMMG series for Medical Devices classified as GHTF Class C (Japan Class III)

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	M	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)	
LMMC	Wire-wound Ferrite Bead Inductors for Power Lines for Medical Devices classified as GHTF Class C (Japan Class III)
LMMG	Wire-wound Ferrite Bead Inductors for Power Lines for Medical Devices classified as GHTF Class C (Japan Class III)

(1) Product Group

Code	
L	Inductors

(2) Category

Code	Recommended equipment	Quality Grade
M	Medical Devices classified as GHTF Class C (Japan Class III)	2

(3) Type

Code	
M	Ferrite Wire-wound bead

(4) Features, Characteristics

Code	
C	High current
G	High frequency

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

⑤Packaging

Code	Packaging
T	Taping

⑥Nominal impedance

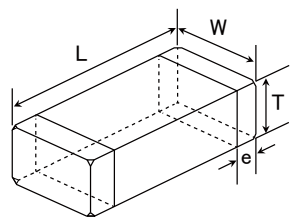
Code (example)	Nominal impedance [Ω]
330	33
221	220
102	1000

⑦Impedance tolerance

Code	Impedance tolerance
R	±25%
N	±30%

⑧Internal code

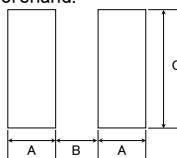
STANDARD EXTERNAL DIMENSIONS / STANDARD QUANTITY



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 LMMC, *2 LMMG

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.
 - The products are for Medical Devices classified as GHTF Class C (Japan Class III).
- Please consult with TAIYO YUDEN's official sales channel for the details of the product specifications, etc., and please review and approve the product specifications before ordering.

Standard 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]
LMMCC201208T250NG	FB MJ2125HS250NT8	25	$\pm 30\%$	100	0.004	6.0	0.85 ± 0.2
LMMCC201208T420RG	FB MJ2125HS420-T8	42	$\pm 25\%$	100	0.008	4.0	0.85 ± 0.2
LMMCA201208T210NG	FB MJ2125HM210NT8	21	$\pm 30\%$	100	0.004	6.0	0.85 ± 0.2
LMMCA201208T330RG	FB MJ2125HM330-T8	33	$\pm 25\%$	100	0.008	4.0	0.85 ± 0.2
LMMCG201208T8R0NG	FB MJ2125HL8R0NT8	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]
LMMCC321611T480NG	FB MJ3216HS480NT8	48	$\pm 30\%$	100	0.005	6.0	1.1 ± 0.2
LMMCC321611T800RG	FB MJ3216HS800-T8	80	$\pm 25\%$	100	0.010	4.0	1.1 ± 0.2
LMMCA321611T380NG	FB MJ3216HM380NT8	38	$\pm 30\%$	100	0.005	6.0	1.1 ± 0.2
LMMCA321611T600RG	FB MJ3216HM600-T8	60	$\pm 25\%$	100	0.010	4.0	1.1 ± 0.2
LMMCG321611T160NG	FB MJ3216HL160NT8	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]
LMMCC451611T720NG	FB MJ4516HS720NT8	72	$\pm 30\%$	100	0.007	6.0	1.1 ± 0.2
LMMCC451611T111RG	FB MJ4516HS111-T8	110	$\pm 25\%$	100	0.014	4.0	1.1 ± 0.2
LMMCA451611T560NG	FB MJ4516HM560NT8	56	$\pm 30\%$	100	0.007	6.0	1.1 ± 0.2
LMMCA451611T900RG	FB MJ4516HM900-T8	90	$\pm 25\%$	100	0.014	4.0	1.1 ± 0.2
LMMCG451611T230NG	FB MJ4516HL230NT8	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			
LMMGA160808T470RG	FB MH1608HM470-T8	47	$\pm 25\%$	75	$\pm 40\%$	0.020	3.5	0.8 ± 0.1
LMMGA160808T600RG	FB MH1608HM600-T8	60	$\pm 25\%$	100	$\pm 40\%$	0.025	3.0	0.8 ± 0.1
LMMGA160808T101RG	FB MH1608HM101-T8	100	$\pm 25\%$	170	$\pm 40\%$	0.035	2.5	0.8 ± 0.1
LMMGA160808T151RG	FB MH1608HM151-T8	150	$\pm 25\%$	270	$\pm 40\%$	0.050	2.1	0.8 ± 0.1
LMMGA160808T221RG	FB MH1608HM221-T8	220	$\pm 25\%$	370	$\pm 40\%$	0.070	1.8	0.8 ± 0.1
LMMGA160808T331RG	FB MH1608HM331-T8	330	$\pm 25\%$	520	$\pm 40\%$	0.130	1.2	0.8 ± 0.1
LMMGA160808T471RG	FB MH1608HM471-T8	470	$\pm 25\%$	750	$\pm 40\%$	0.150	1.0	0.8 ± 0.1
LMMGA160808T601RG	FB MH1608HM601-T8	600	$\pm 25\%$	900	$\pm 40\%$	0.170	0.9	0.8 ± 0.1
LMMGA160808T102RG	FB MH1608HM102-T8	1000	$\pm 25\%$	1200	$\pm 40\%$	0.350	0.6	0.8 ± 0.1
LMMGG160808T300RG	FB MH1608HL300-T8	30	$\pm 25\%$	120	$\pm 40\%$	0.028	2.6	0.8 ± 0.1
LMMGG160808T600RG	FB MH1608HL600-T8	60	$\pm 25\%$	220	$\pm 40\%$	0.045	2.1	0.8 ± 0.1
LMMGG160808T121RG	FB MH1608HL121-T8	120	$\pm 25\%$	540	$\pm 40\%$	0.130	1.2	0.8 ± 0.1
LMMGG160808T221RG	FB MH1608HL221-T8	220	$\pm 25\%$	950	$\pm 40\%$	0.170	0.9	0.8 ± 0.1
LMMGG160808T331RG	FB MH1608HL331-T8	330	$\pm 25\%$	1200	$\pm 40\%$	0.210	0.8	0.8 ± 0.1
LMMGG160808T471RG	FB MH1608HL471-T8	470	$\pm 25\%$	1500	$\pm 40\%$	0.350	0.6	0.8 ± 0.1
LMMGG160808T601RG	FB MH1608HL601-T8	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]
LMMGA201208T800RG	FB MH2012HM800-T8	80	$\pm 25\%$	100	0.025	2.7	0.85 ± 0.2
LMMGA201208T121RG	FB MH2012HM121-T8	120	$\pm 25\%$	100	0.032	2.5	0.85 ± 0.2
LMMGA201208T221RG	FB MH2012HM221-T8	220	$\pm 25\%$	100	0.060	2.0	0.85 ± 0.2
LMMGA201208T331RG	FB MH2012HM331-T8	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]
LMMGA201616T121NG	FB MH2016HM121NT8	120	$\pm 30\%$	100	0.015	4.5	1.6 ± 0.2
LMMGA201616T251NG	FB MH2016HM251NT8	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]
LMMGA321616T221NG	FB MH3216HM221NT8	220	$\pm 30\%$	100	0.020	4.0	1.6 ± 0.2
LMMGA321616T501NG	FB MH3216HM501NT8	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]
LMMGA322525T601NG	FB MH3225HM601NT8	600	$\pm 30\%$	100	0.042	3.0	2.5 ± 0.3
LMMGA322525T102NG	FB MH3225HM102NT8	1000	$\pm 30\%$	100	0.100	2.0	2.5 ± 0.3
LMMGA322525T202NG	FB MH3225HM202NT8	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]
LMMGA451616T851NG	FB MH4516HM851NT8	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]
LMMGA452525T102NG	FB MH4525HM102NT8	1000	$\pm 30\%$	100	0.060	3.0	2.5 ± 0.3
LMMGA452525T162NG	FB MH4525HM162NT8	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]
LMMCC160808T220NG	FB MJ1608HS220NT8	22	$\pm 30\%$	100	0.004	7.5	0.8 ± 0.2
LMMCC160808T280NG	FB MJ1608HS280NT8	28	$\pm 30\%$	100	0.006	6.0	0.8 ± 0.2
LMMCA160808T180NG	FB MJ1608HM180NT8	18	$\pm 30\%$	100	0.004	7.5	0.8 ± 0.2
LMMCA160808T230NG	FB MJ1608HM230NT8	23	$\pm 30\%$	100	0.006	6.0	0.8 ± 0.2

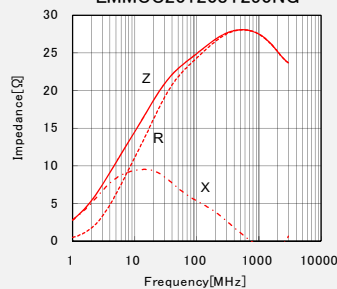
※) The rated current is the value of current at which the temperature of the element is increased by 40 deg.

ELECTRICAL CHARACTERISTICS

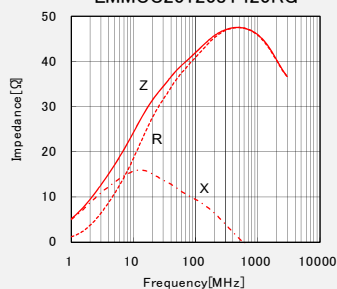
Standard type

2012 type

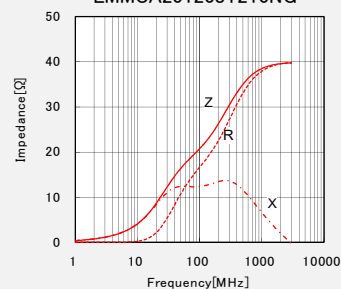
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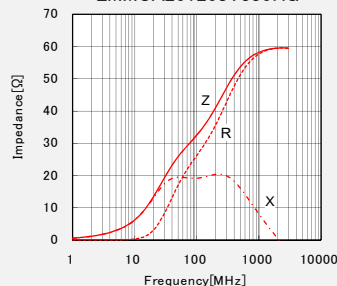
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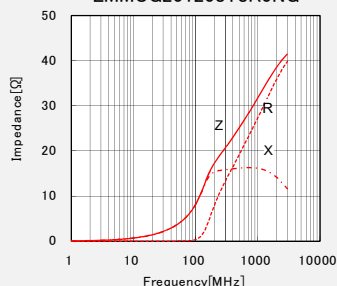
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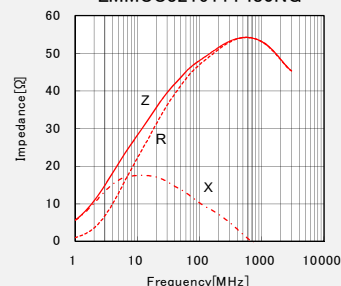
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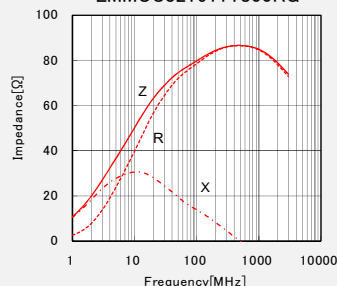
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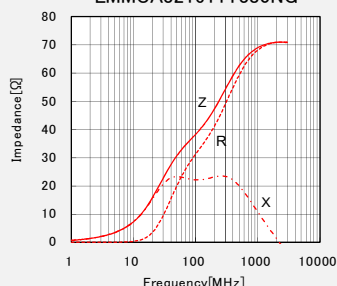
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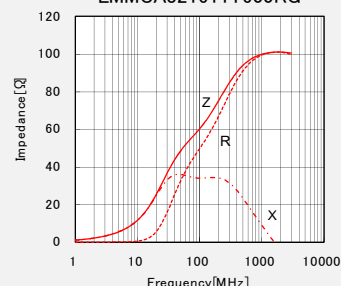
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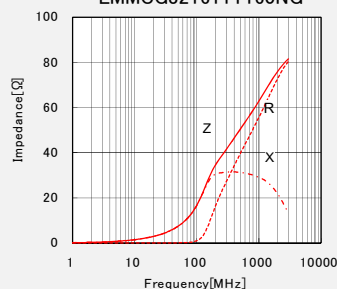
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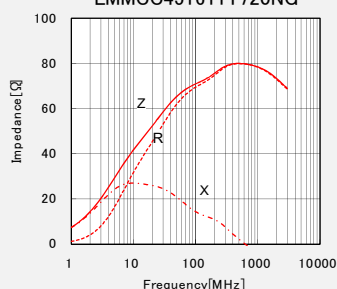
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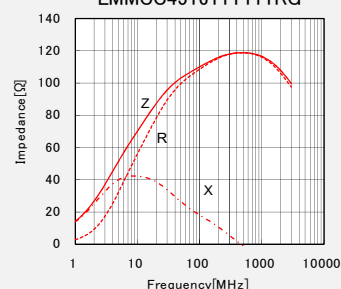
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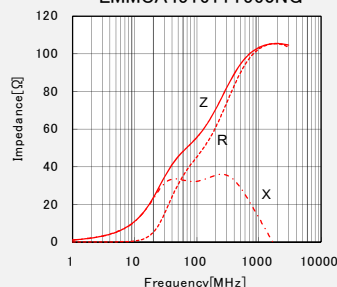
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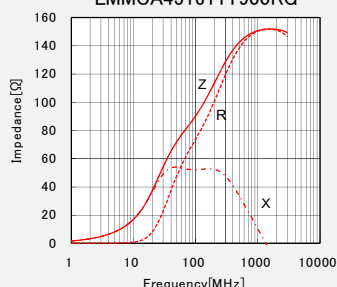
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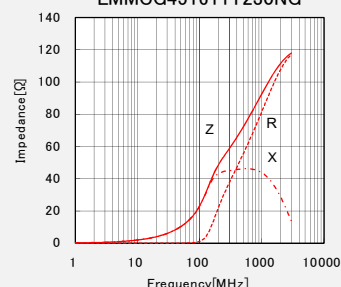
LMMCA451611T560NG



LMMCA451611T900RG



LMMCG451611T230NG



► 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/>).

TAIYO YUDEN

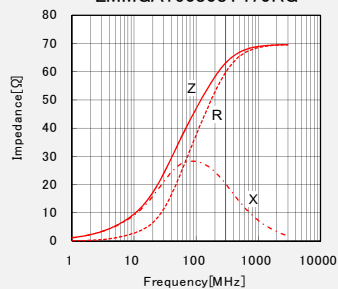
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ELECTRICAL CHARACTERISTICS

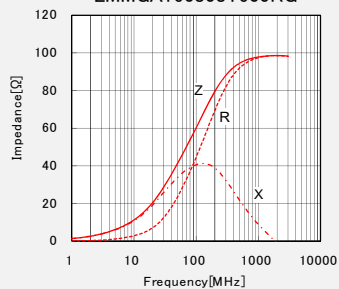
High impedance type(GHz Band)

1608 type

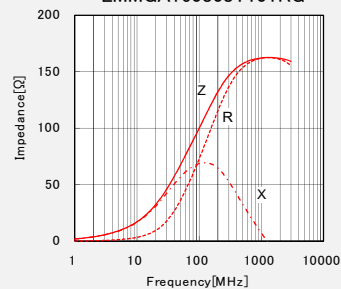
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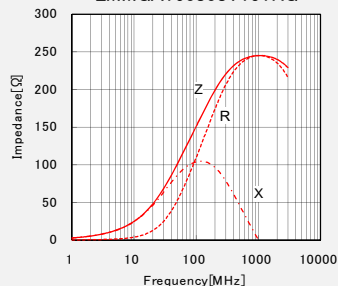
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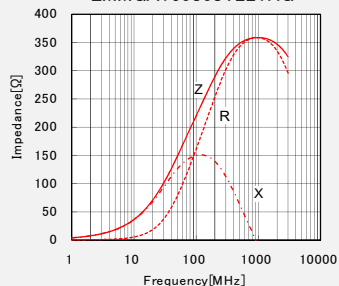
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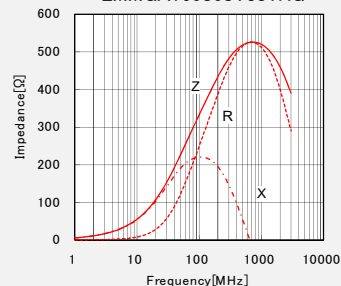
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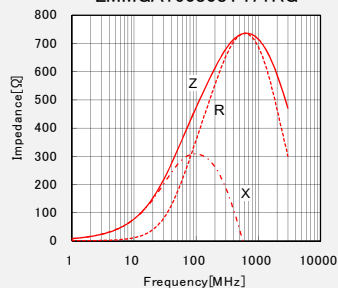
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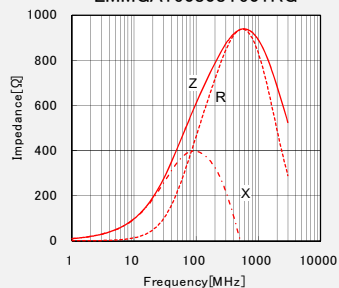
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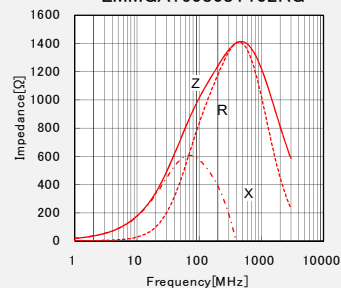
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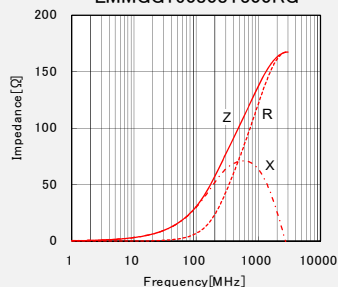
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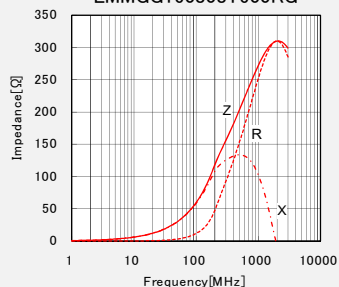
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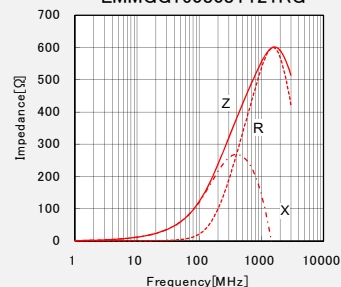
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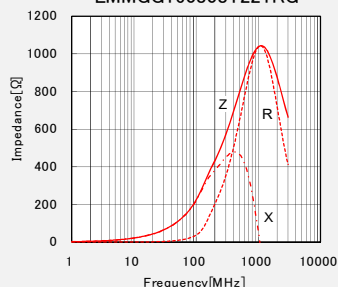
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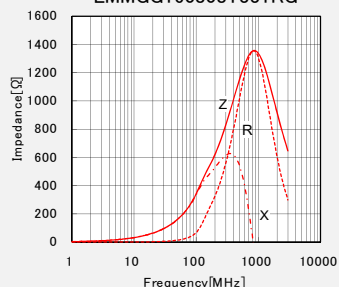
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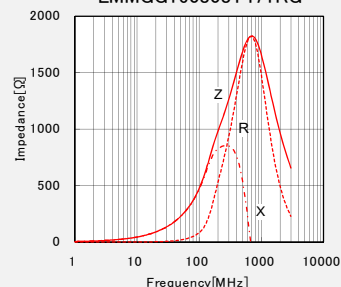
LMMGG160808T221RG



LMMGG160808T331RG



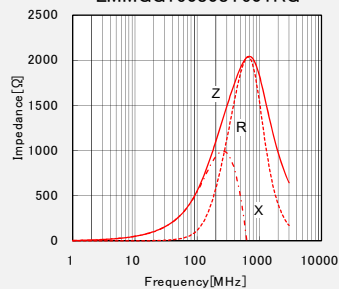
LMMGG160808T471RG



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ELECTRICAL CHARACTERISTICS

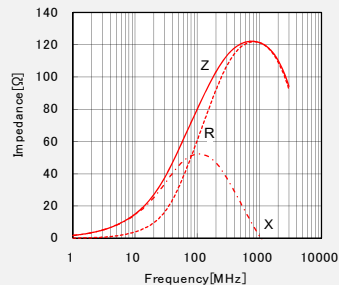
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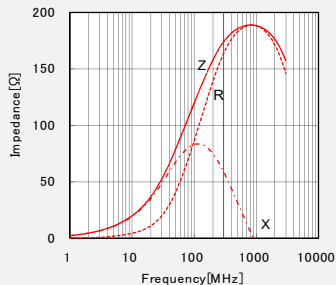
High impedance type

2012 type

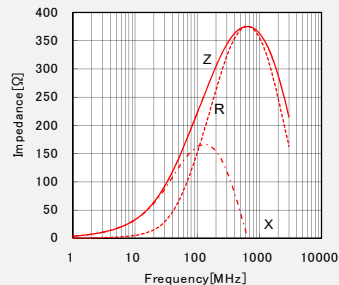
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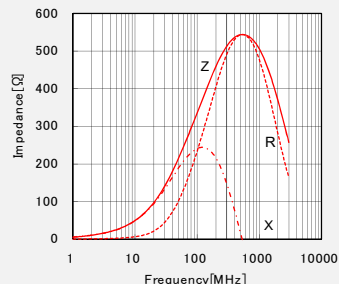
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LMMGA201208T221RG

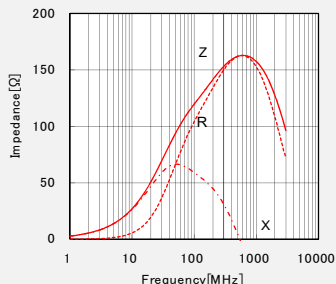


LMMGA201208T331RG

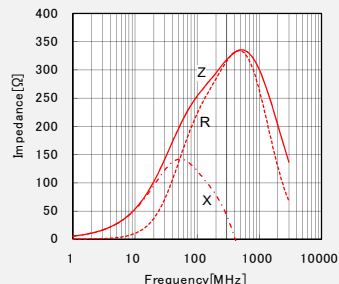


2016 type

LMMGA201616T121NG

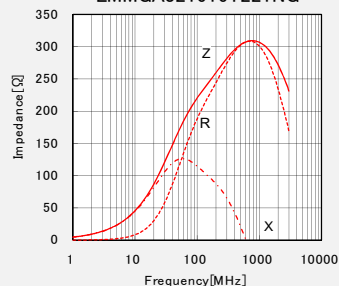


LMMGA201616T251NG

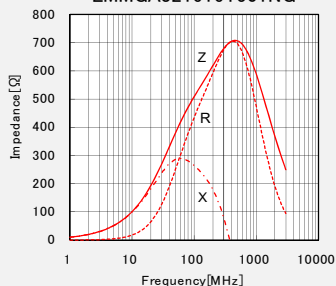


3216 type

LMMGA321616T221NG

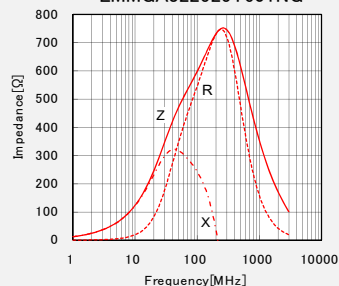


LMMGA321616T501NG

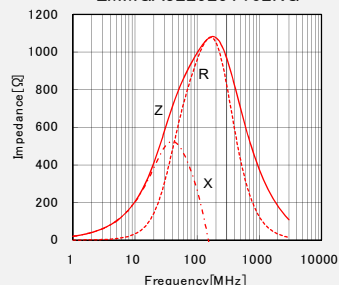


3225 type

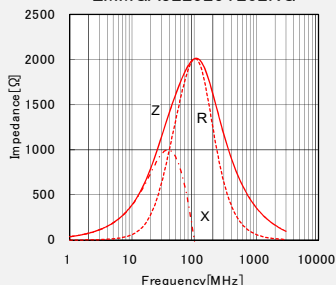
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LMMGA322525T102NG

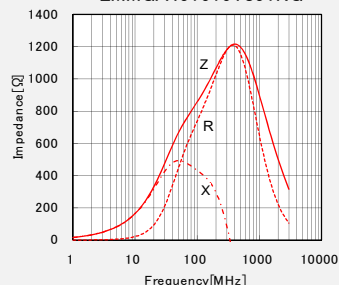


LMMGA322525T202NG



4516 type

LMMGA451616T851NG

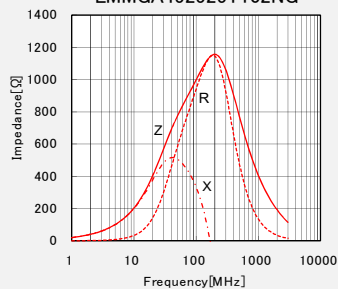


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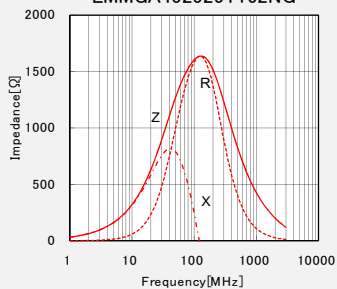
ELECTRICAL CHARACTERISTICS

4525 type

LMMGA452525T102NG

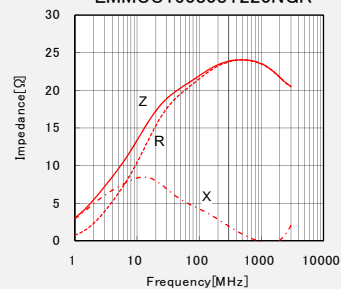


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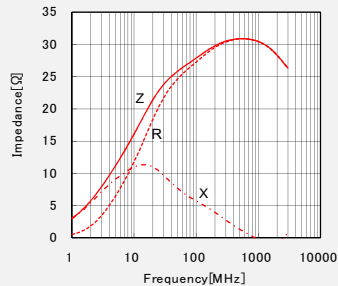


High current type

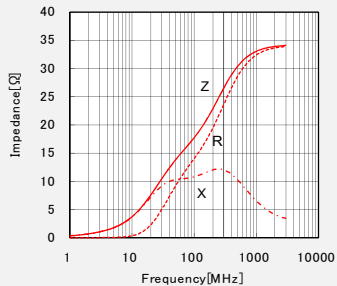
LMMCC160808T220NGR



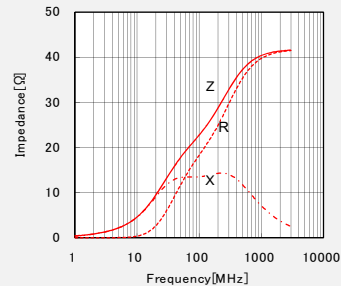
LMMCC160808T280NGR



LMMCA160808T180NGR



LMMCA160808T230NGR



Derating of Rated Current

LMMC/LMMG serieise

Derating of current is necessary for LMMC/LMMG series depending on ambient temperature.

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

LMMC/LMMG

