

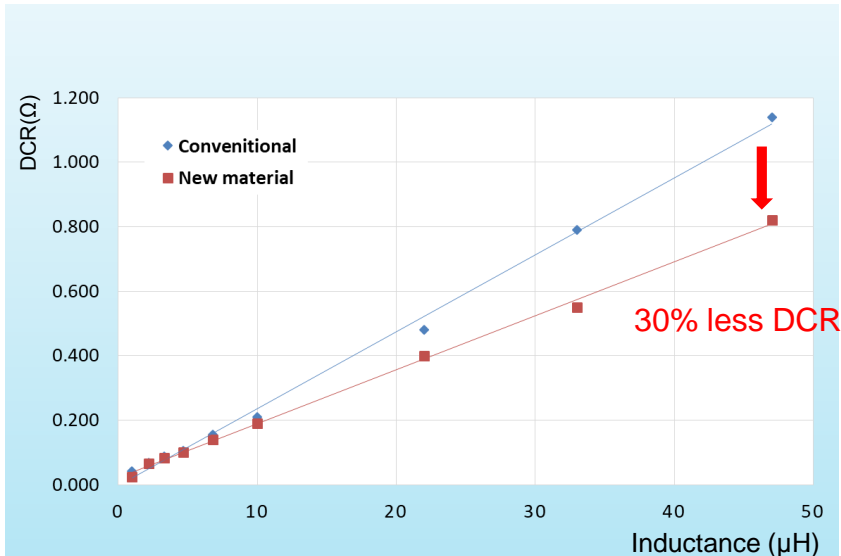
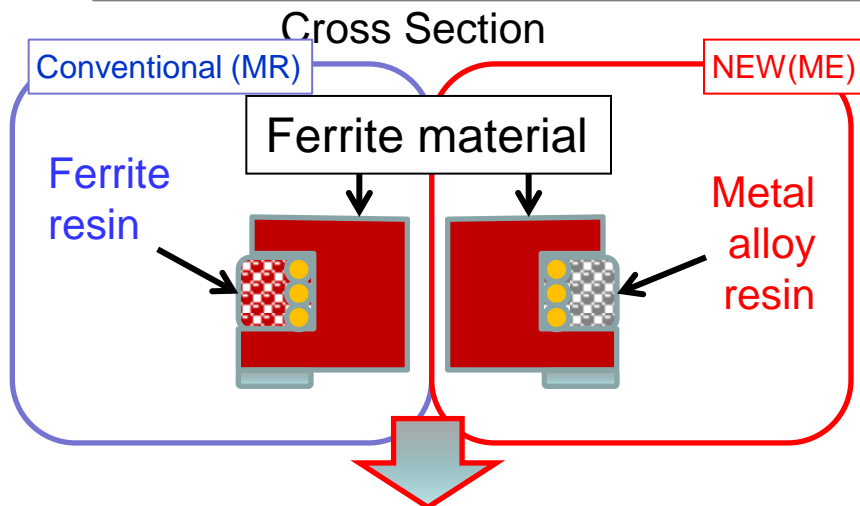
LQH3NP-ME (Wire Wound type Power Inductor)

Introduction

2018 Sep
EMI Division (C2E)



Metal resin coating LQH3NP_ME series



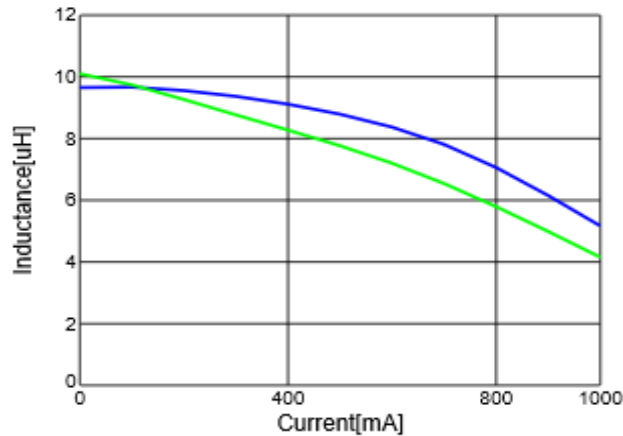
New material power inductor has better DCR than conventional items' !!

NEW!!

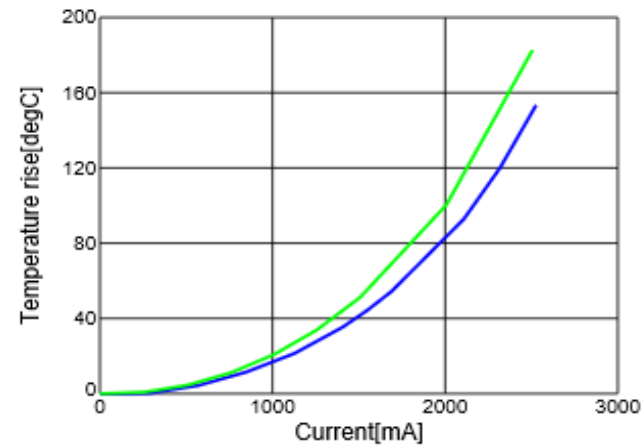
	LQH3NP_MR (Ferrite resin)	LQH3NP_ME (Metal resin)
Appearance		
Size	L : 3.0mm typ. W : 3.0mm typ. H : 1.5mm max.	L : 3.0mm typ. W : 3.0mm typ. H : 1.5mm max.
Inductance	1.0 – 47μH	1.0 – 100μH
Rated Current	0.46A(47μH) 2.15A(1.0μH)	0.61A(47μH) 3.00A(1.0μH)
Temp. Range	-40C to 125C Including Self-heating	-40C to 125C including Self- heating

Comparison data” MR VS ME”

Inductance-Current
Characteristics(Typ.)



Temperature-Rise
Characteristics(Typ.)



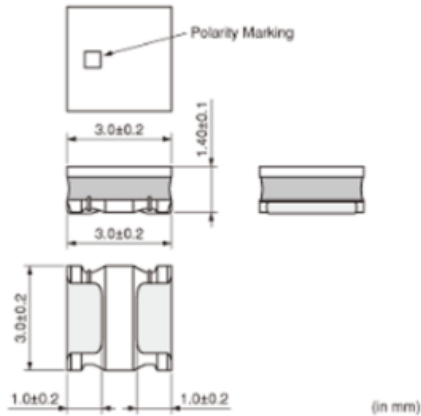
— LQH3NPN100MME(10μH)
— LQH3NPN100MMR(10μH)

New material power inductor(ME) has better characteristic than Conventional items’!!

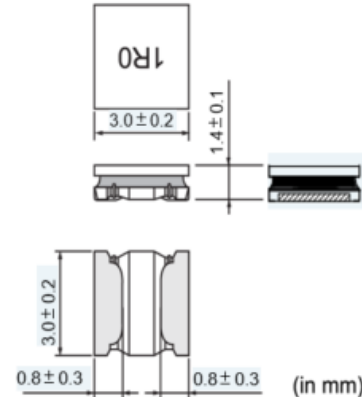
LQH3NP_ME Cross item to MR.

1212 inch size, 1.5mm max. Thickness

LQH3NP_MR series



LQH3NP_ME series



Part Number	Inductance	Rdc(Ω)	Isat(mA)	Itemp(mA)
LQH3NPN1R0MMR	1.0uH ±20%	0.042±20%	1600	2150
LQH3NPN2R2MMR	2.2uH ±20%	0.068±20%	1380	1750
LQH3NPN3R3MMR	3.3uH ±20%	0.088±20%	1200	1550
LQH3NPN4R7MMR	4.7uH ±20%	0.105±20%	950	1400
LQH3NPN6R8MMR	6.8uH ±20%	0.155±20%	830	1250
LQH3NPN100MMR	10uH ±20%	0.21±20%	590	1150
LQH3NPN220MMR	22uH ±20%	0.48±20%	430	750
LQH3NPN330MMR	33uH ±20%	0.79±20%	380	600
LQH3NPN470MMR	47uH ±20%	1.14±20%	320	460

Part Number	Inductance	Rdc(Ω)	Isat(mA)	Itemp(mA)
LQH3NPN1R0MME	1.0uH ±20%	0.025±20%	2350	3000
LQH3NPN2R2MME	2.2uH ±20%	0.065±20%	1800	2100
LQH3NPN3R3MME	3.3uH ±20%	0.084±20%	1520	1900
LQH3NPN4R7MME	4.7uH ±20%	0.1±20%	1300	1700
LQH3NPN6R8MME	6.8uH ±20%	0.14±20%	1040	1450
LQH3NPN100MME	10uH ±20%	0.19±20%	810	1280
LQH3NPN150MME	15uH ±20%	0.29±20%	660	1020
LQH3NPN220MME	22uH ±20%	0.40±20%	570	860
LQH3NPN330MME	33uH ±20%	0.55±20%	440	760
LQH3NPN470MME	47uH ±20%	0.82±20%	380	610
LQH3NPN101MME	100uH ±20%	1.59±20%	260	430

BEST PARTNER



Appendix

1212 Size, 1.5mm max. Thickness LQH3NPN_ME Series

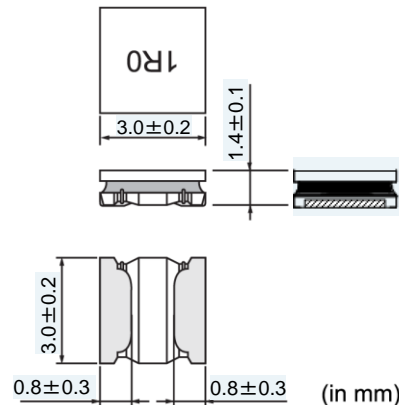
◆ Features

1. Excellent saturation characteristics with DC high-current.
Stable inductance performance compared with conventional types.
2. 1-100μH wide range of inductance line-up.
Suitable for Step-up/down converter application.
3. 1.5mm max height with 3.0mm × 3.0mm size.

◆ Applications

Suitable for LCD panel and module types of application with low profile structure.

◆ Dimensions



◆ Appearance



◆ Packaging

Code	Packaging	Minimum Quantity
L	ø180mm Embossed Taping	3000

◆ Caution/Notice

Caution (Rating)

1. About the Rated Current
Do not use products beyond the rated current as this may create excessive heat and deteriorate the insulation resistance.
2. About Excessive Surge Current
Surge current (pulse current or rush current) greater than the specified rated current applied to the product may cause a critical failure, such as an open circuit, burnout caused by excessive temperature rise. Please contact us in advance in case of applying the surge current.

Types and specifications in this sheet are referenced for your information only. Please consult with MURATA prior for using, and confirm with specification sheet.

1212 Size, 1.5mm max. Thickness LQH3NPN_ME Series

◆ Rated Value

Part Number	Inductance		DC Resistance (Ω)	Self Resonant Frequency (MHz min)	Rated Current(mA)		
	(μH)	Tolerance (%)			*1 (Based on inductance change)	*2 Based on Temperature rise	
						*3 Ambient temperature (85°C)	*4 Ambient temperature (105°C)
LQH3NPN1R0MME	1	M:±20%	0.025±20%	100	2350	3000	1600
LQH3NPN2R2MME	2.2		0.065±20%	60	1800	2100	1220
LQH3NPN3R3MME	3.3		0.084±20%	55	1520	1900	1150
LQH3NPN4R7MME	4.7		0.1±20%	40	1300	1700	1000
LQH3NPN6R8MME	6.8		0.14±20%	30	1040	1450	900
LQH3NPN100MME	10		0.19±20%	20	810	1280	800
LQH3NPN150MME	15		0.29±20%	15	660	1020	620
LQH3NPN220MME	22		0.40±20%	10	570	860	540
LQH3NPN330MME	33		0.55±20%	8	440	760	460
LQH3NPN470MME	47		0.82±20%	5	380	610	380
LQH3NPNR10MME	100		1.59±20%	3	260	430	270

*1:When applied Rated current to the Products , Inductance will be within ±30% of initial inductance value range.

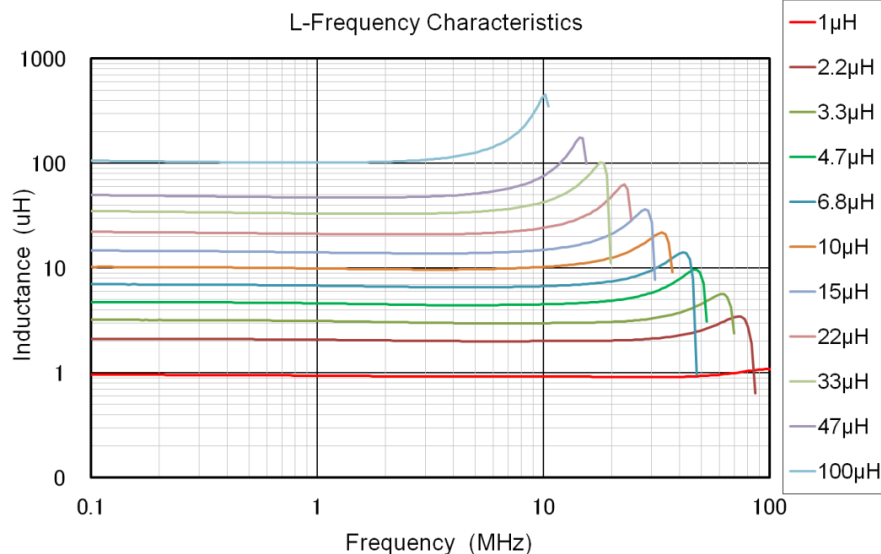
*2:Keep the temperature (ambient temperature plus self-generation of heat) under 125°C.

*3:When applied Rated current to the Products ,temperature rise caused by self-generated heat shall be limited to 40°C max. (Ambient temperature 85°C).

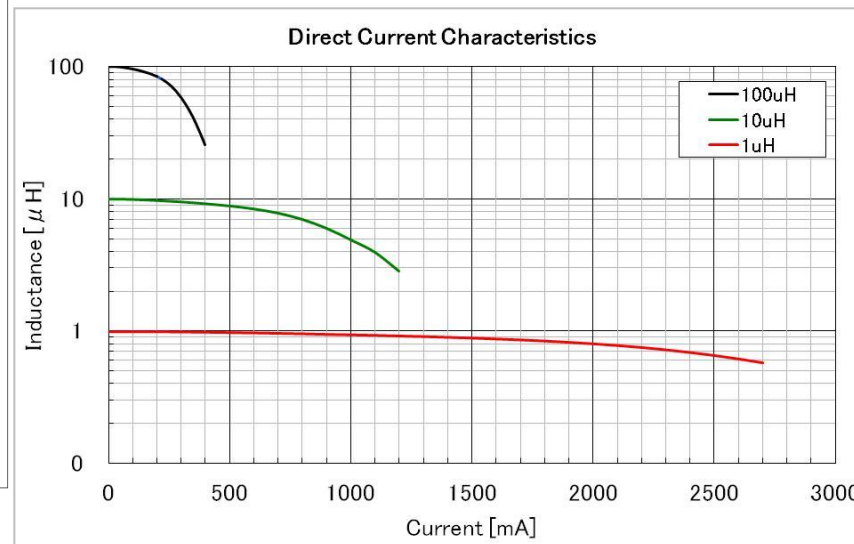
*4:When applied Rated current to the Products ,temperature rise caused by self-generated heat shall be limited to 20°Cmax. (Ambient temperature 85 to 105°C)..

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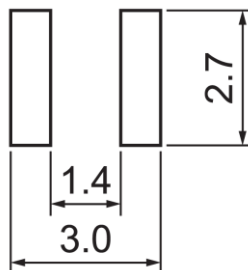
◆ L-Frequency Characteristics (Typ.)



◆ Direct Current Characteristics (Typ.)

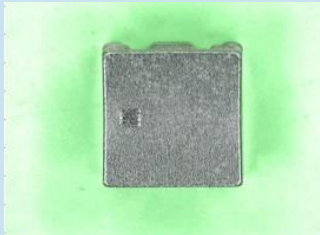

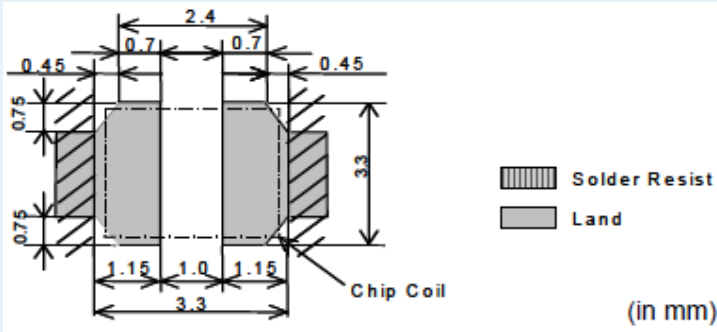
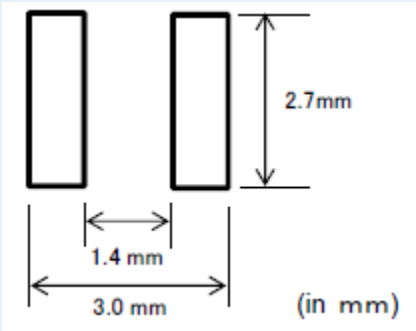


◆ Land Dimensions (Reflow soldering)



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LQH3NP_MR vs ME Specification Comparison

	LQH3NP_MR	LQH3NP_ME
Mark	<p>■ mark</p> 	<p>Three digits (Inductance value)</p> 
Embossed tape	Width:8mm, Pitch:4mm	Width:8mm, Pitch:4mm
Packing quantity	2000pcs/reel(Φ180mm reel)	2000pcs/reel(Φ180mm reel)
Recommended land patterns		

muRata



***Same**

(in mm)



Diagram showing two rectangular fins. The height of each fin is 2.7 mm. The gap between the fins is 1.4 mm. The total width of the two fins and the gap is 3.0 mm. The units are in mm.

