

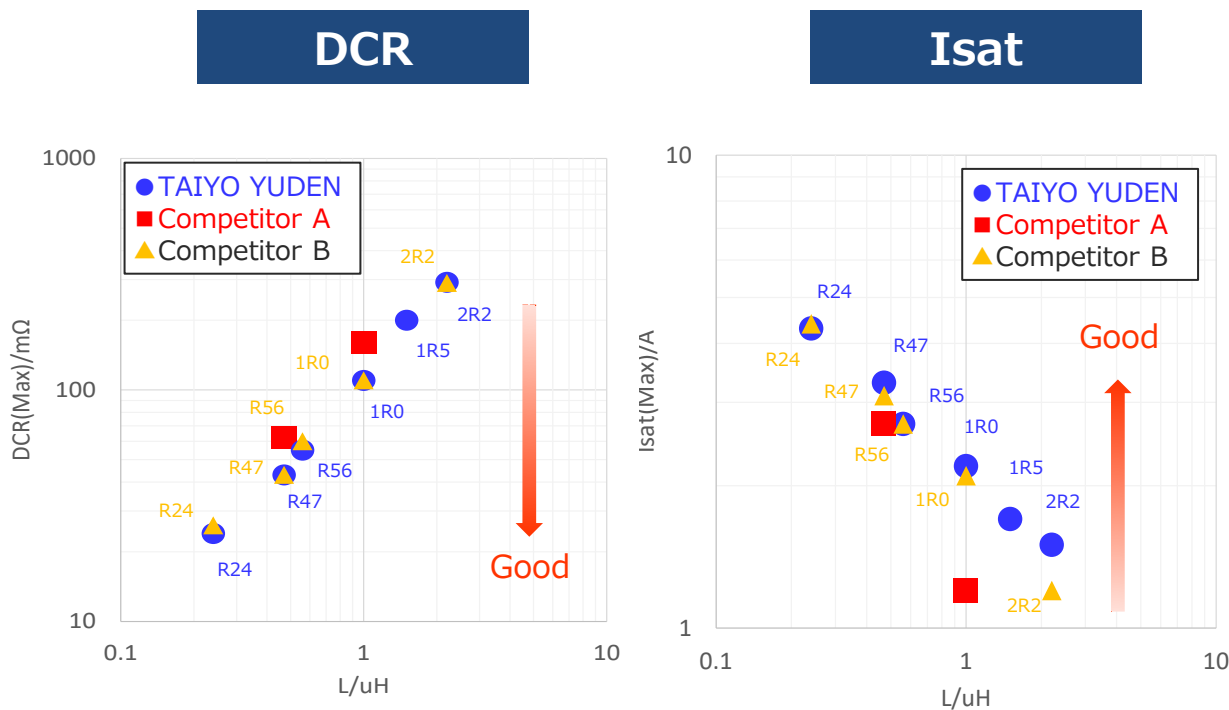
Characteristics Comparison of Multilayer Metal Inductors

TAIYO YUDEN's multilayer metal power inductors offer superior performance over competitors' products in DC resistance, rated current, high-frequency characteristics, heat generation, and leakage flux. They contribute to highly energy-efficient circuit designs.

Characteristic comparison / DC-resistance and Rated Current

TAIYO YUDEN

- 1608 size maxT0.8mm



※(Condition) Environmental temperature:25℃

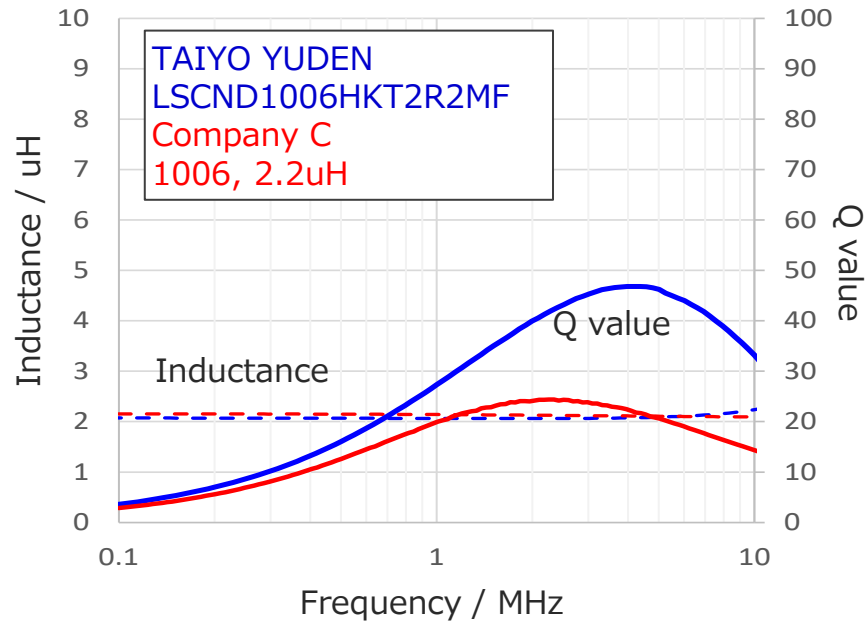
LSCN Series shows **equal or greater characteristic than competitor's** from the point of DCR and Rated current

Characteristic comparison / Inductance, Q value and Efficiency

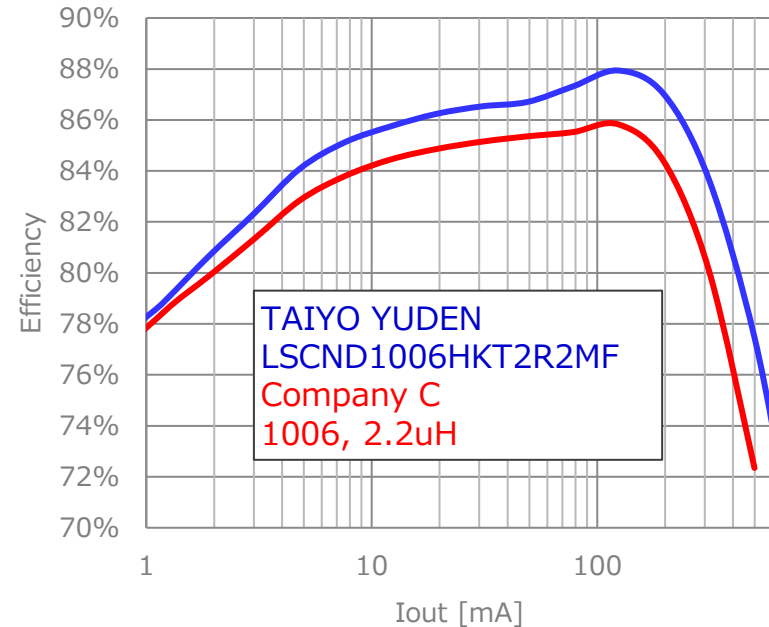
TAIYO YUDEN

1.0x0.6mm Tmax0.8mm 2.2uH

Inductance & Q value
frequency characteristics



DCDC converting efficiency
Vin3.6V Vout1.8V Fsw1.8MHz

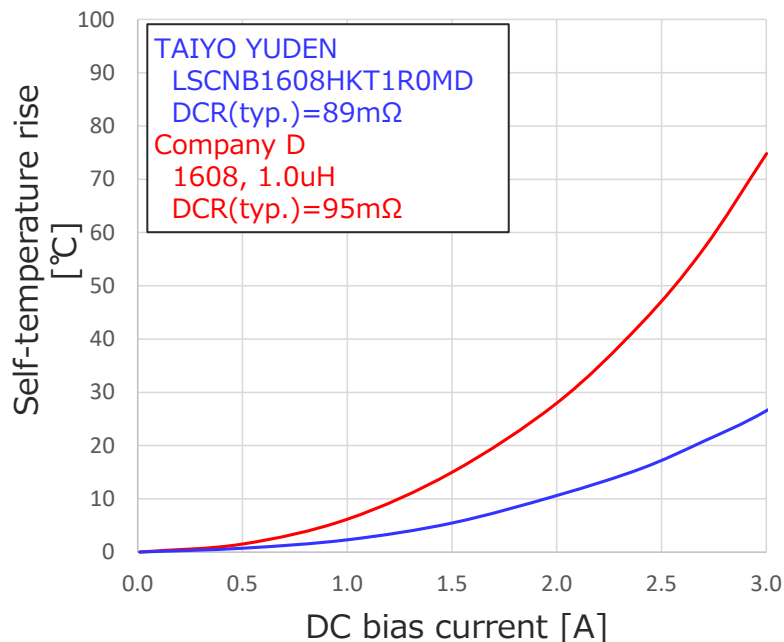


Equipped with **Higher Q value** in high frequency range and **Higher efficiency** got on **TAIYO YUDEN's LSCN series**.

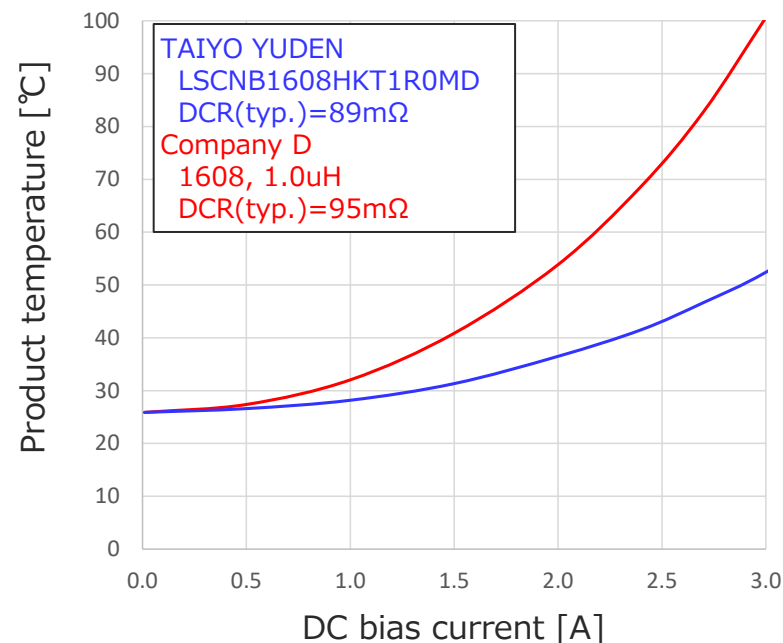
Characteristics comparison / Heat generation during current loading

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Self-temperature rise during DC current loading



Product temperature during DC current loading

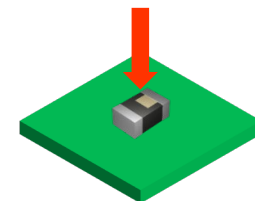


Temperature increasing is suppressed on TAIYO YUDEN Part.

Characteristic Comparison / Leakage Magnetic Flux of Multilayer Metal LACNF2012 Under AC Load

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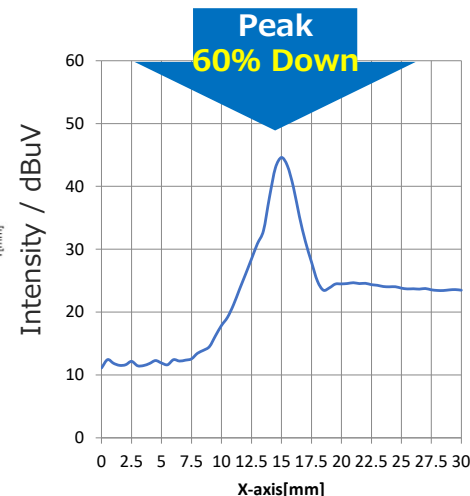
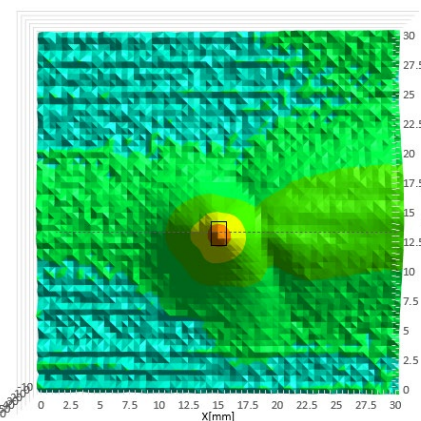
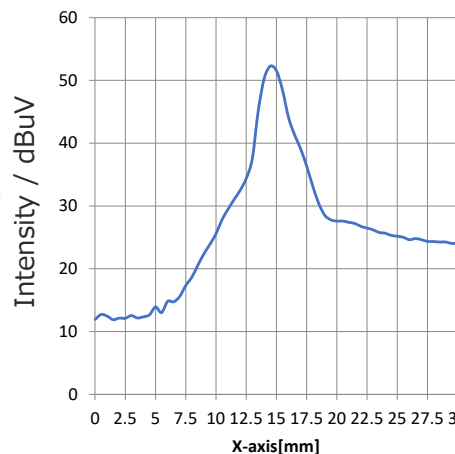
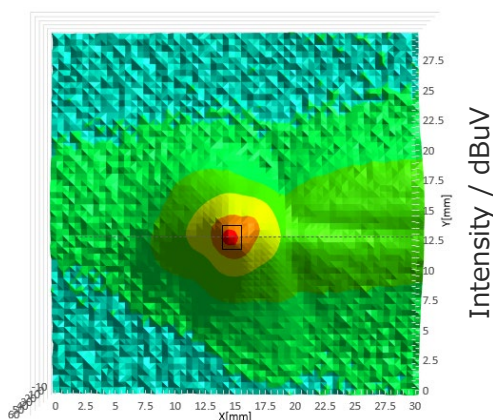
Leakage Magnetic Flux Measurement Results (0.5 mm from Product),
Load Conditions: Vin 3.7 V / Vout 1.1 V / Fsw 2.2 MHz / Ip-p 0.27 A



Company E
2012, 1.0uH

TAIYO YUDEN
LACNF2012KKT1R0MA

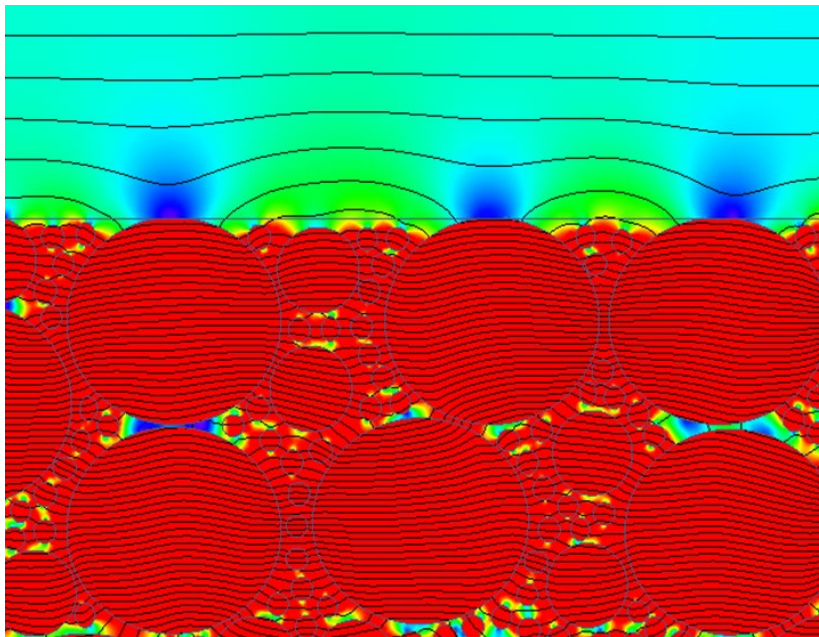
※(Condition)
Environmental temperature: 25°C



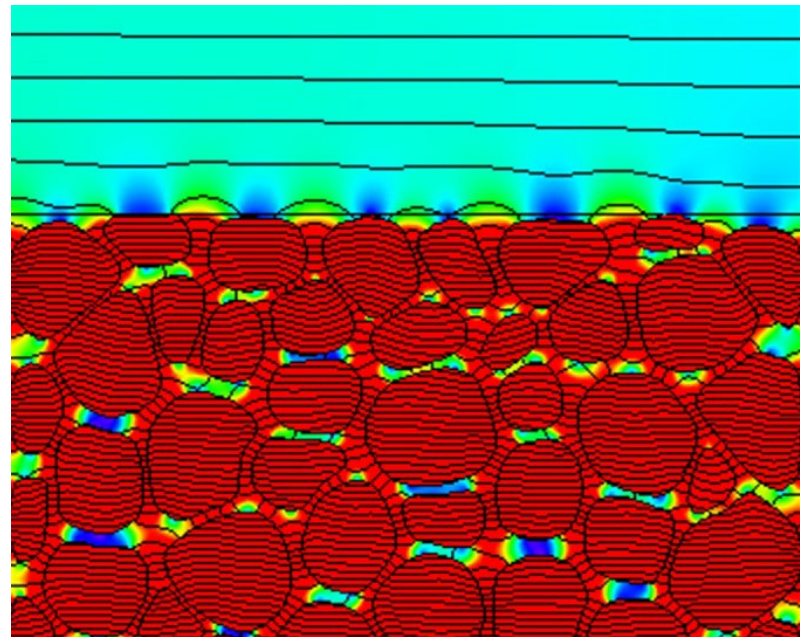
Our product exhibits **lower leakage magnetic flux.**

Magnetic leakage simulation Magnetic flux density and Magnetic force line behavior

Metal particle bonded by resin
Wide distance between particles



Metal particle bonded by oxide layer
Particle closing to the other



Magnetic flux
density

small

Large

- Non-magnetic resin is lacking in ability to flow magnetic flux. It is spread when flux flows through non-magnetic resin.
- Larger magnetic flux density area ■ is also spread farther. It causes larger magnetic leakage.