

March 10, 2021 NJ Components Co., Ltd.

## Commercialization of 1005 size Power Inductor with low loss, high DC bias Characteristics

NJ Components Co., Ltd. has commercialized Power Inductor MIPSCZ1005\_T Series ( $1.0 \times 0.5$ mm, Height 0.75mm max) with low loss and high DC bias Characteristics.

Small mobile device requires high functionality and highspeed communication which needs larger energy consumption. High functionality requires more inductors with small, low loss, high dc bias characteristics in power circuit.

1005 size power inductor will contribute to the lower energy consumption at high frequency converter circuit with high conversion efficiency and, also will contribute to higher density mounting and thinner module for small mobile devices with limited mounting space.

NJ Components will continue to meet various customer requirements by pulling out potential of ferrite material and enhance product lineup of MIPSCZ1005\_T Series.



## [Application]

- ·Power circuit for mobile devices, small electronics devises
- · Power circuit for wearables, IoT Devices.
- ·Small Power Modules

## [Features]

- ·Low loss and high DC bias characteristics with market smallest size of 1005
- ·40% mounting space reduction compare to existing product MIPSZ1608D Series with lower loss.
- ${\bf \cdot} {\sf Most \ suitable \ Power \ inductor \ for \ high \ frequency \ Power \ circuit}$

## <Product Lineup>

Product Name	MIPSCZ1005D	MIPSCZ1005D	MIPSCZ1005D
	R22T	R33T	R47T
Inductance (µH)_typ. at 1MHz	0.22	0.33	0.47
DCR (Ω)_typ.	0.22	0.25	0.26
Rated Current (A)_typ.*2	0.85	0.70	0.65
Rated Current (A)_typ.*3	1.50	1.20	0.90

\*1: IoT: Internet of Things \*2: In case temperature rise to 40℃ due to self-heating

\*3 : The saturation current : L = -30% down from initial value

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