
**New Product : High-Power Class-D Amplifier Output Filter Inductor
'7G23Rseries'**



SAGAMI ELEC CO., LTD. is pleased to announce the development of the [7G23R series](#) (W 23.0mm×D14.5mm×H23.0mm) inductors for Class-D amplifier output filters (LPF).

Inductors used in Class-D amplifier output filters must handle both high audio-signal currents and switching-frequency components in the hundreds of kilohertz range. In conventional single-wire windings, the skin effect and proximity effect increase AC losses, resulting in greater heat generation.

The newly developed [7G23R series](#) is based on our existing 7G23 series and features Litz-wire winding in place of conventional single-wire winding. This design reduces AC losses in the switching-frequency range used by Class-D amplifiers.

Evaluation results confirmed that the reduction in AC loss lowers inductor temperature rise during Class-D amplifier operation compared with the conventional [7G23G-100M](#). Under idling conditions, in particular, **heat generation was reduced by approximately 50%**.

By minimizing power loss and self-heating, which are key challenges in high-output Class-D amplifiers, the 7G23R series contributes to improved amplifier efficiency, more stable operation, and reduced thermal design requirements.

We will continue to expand our product lineup to meet evolving market needs and support a wide range of application and solutions.

Main Applications

High-Power Class-D Amplifier LPF (Low-Pass Filter), Professional Audio Equipment,
AV Amplifiers, Audio Amplifiers

Features

- Litz wire construction reduces losses around Class-D amplifier operating frequencies.
(23.8mΩtyp@100kHz)
- Realized high power and high quality sound using low loss material.
- Closed magnetic circuit with low flux leakage, low DC resistance, and high current rating
- Operating Temperature : -40℃~+125℃(including self-heating)

Electrical Characteristics

Part Number	L(μH)	DCR (mΩ)Max.	Isat (A)	Irat (A)
7G23R-100M	10 ± 20%	24	36.9	5.5
7G23R-220M	22 ± 20%	24	17.1	5.5

Inductance Measuring Condition: 100kHz, 1V

DC saturation allowable current: The current value which inductance decreases within 25% from the initial value

Temperature rise allowable current: The rise in temperature of core surface is within 40℃

Product Details

<https://www.sagami-elec.co.jp/en/product/detail.php?type=7G23R>

Contact

For inquiries about this product (including quotations and sample requests), please contact us using [the inquiry form](#).