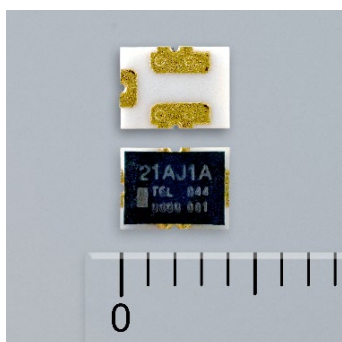
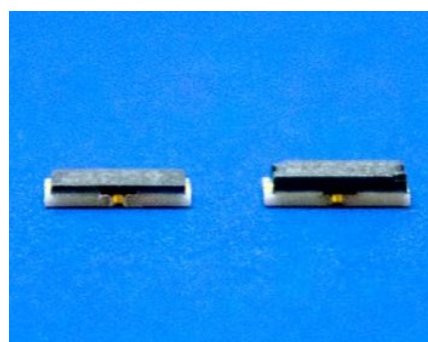


SFJ-21A Series of World's Thinnest Surface Mount Fuses Developed — Ideal for smartphones advancing in thinness and integration —

Dexerials Corporation (Headquarters: Shimotsuke-shi, Tochigi, President and Representative Director: Yoshihisa Shinya; hereinafter “Dexerials”) is pleased to announce the development and commercialization of the SFJ-21 series (SFJ-0421A) of surface mount fuses. A thickness of 0.58 mm, has been achieved, making them the world's thinnest*¹ surface mount fuses for the secondary protection of lithium-ion batteries.



SFJ-21 A series



Thickness comparison with our conventional model*²

Recently, due to the advancement of smartphone functionality and AI technology, the power consumption of smartphone devices has been continuously increasing. To ensure a certain operating time, it is necessary to increase the number of lithium-ion battery cells which are the devices' power source, and there is demand for the miniaturization and integration of components other than batteries.

This product which is 4.0 mm wide with a height of 3.0 mm and a thickness of 0.58 mm features a fuse resistance of 1.1 mΩ, making it the world's thinnest surface mount fuse for the secondary protection of lithium-ion batteries. While the number of battery cells in smartphones is increasing, the space within the device is limited, so we developed this product to address the challenge of component integration. With low fuse resistance, the fuse itself generates less heat and consumes less power, and its small and thin design allows for implementation in limited spaces, making it suitable for applications such as smartphones and laptops.

Specifications: For more information, please see the facing page

Product name	SFJ-0421A
Applicable cells in series	1 cell
Rated current (A)	21
Fuse resistance (mΩ)	1.1
Dimension (mm)	4.0 x 3.0 x 0.58 (world's thinnest)

Our company will continue to develop new products to be used in various places where surface mount fuses are applied, and we will increase the global recognition of them as products that contribute to the improvement of the safety of lithium-ion batteries, thereby contributing to the evolution of technology.

*1 World's thinnest surface mount fuse for the secondary protection of lithium-ion batteries (as of January 5, 2026, according to our research)

*2 SFJ-22 A series

■About the SFJ-21A series of surface mount fuses

Our surface mount fuses are secondary protection fuses with a fuse element that melts to interrupt the circuit when the primary protection controlling the charge and discharge of a lithium-ion battery fails to function properly, resulting in overcharge or overcurrent. Since their launch in 1994, they have been widely adopted in consumer IT devices such as laptops, smartphones, and power tools, contributing to the improvement of lithium-ion battery safety.

• Product name

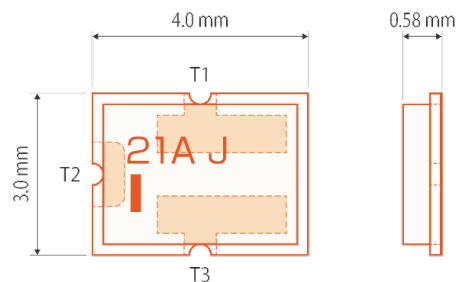
SFJ-21A series of surface mount fuses (SFJ-0421A)

• Features

- (1) A product size of 4.0 mm wide by 3.0 mm high by 0.58 mm thick has been achieved, making them the world's thinnest surface mount fuses for secondary protection. This is a 31% reduction in thickness compared to our conventional model.
- (2) Their low resistance and thin design make them ideal for smartphones which are advancing in terms of functionality and component integration.
- (3) These products are completely lead-free,^{*3} contributing to a reduced environmental impact.

• Detailed specifications

Product name	SFJ-0421A
Applicable cells in series	1 cell
Rated current (A)	21
Rated voltage (VDC) ^{*4}	10
Rated breaking capacity (A)	50
Operating voltage (V)	3.8-4.8
Heater resistance (Ω)	0.68-1.00
Fuse resistance (mΩ)	1.1
Dimension (mm)	4.0 x 3.0 x 0.58



^{*3} The RoHS directive, which restricts the use of hazardous substances in Europe, defines lead-free as a lead content of 1,000 ppm or less.

^{*4} The maximum voltage that can be interrupted by the fuse section, not the operating voltage of the heater section.

<Corporate Profile>

Dexerials develops, manufactures and distributes electronic components, junction materials, optical materials and other functional materials that are indispensable in smartphones, laptops and other electronic devices, in addition to components for automobiles, which are increasingly becoming electronic, making electronics parts ever more indispensable. Also, as a starting point in contributing toward the realization of further growth and a sustainable society, the Company has defined its Purpose: “Empower Evolution. Connect People and Technology.” as explained in the website section “About Dexerials” under “Corporate Philosophy, Vision and Purpose.”

Company name: Dexerials Corporation

Head office: 1724 Shimotsuoyama, Shimotsuke-shi, Tochigi

Representative: Yoshihisa Shinya, Representative Director and President

Established: June 20, 2012

Official website: <https://www.dexerials.jp/en/>

LinkedIn: <https://www.linkedin.com/company/dexerials-corporation/>