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[12] Specification of Utility Model Patent

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Claims: 1 page Description: 2 pages

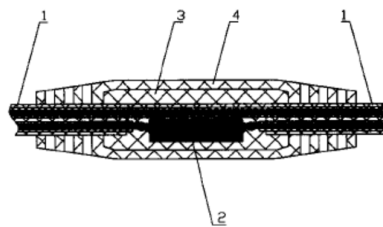
Accompanying drawings: 2 pages

[54] **Title of utility model**

Overcurrent protection device disposed on power supply line

[57] **Abstract**

An overcurrent protection device disposed on a power supply line, characterized by consisting of a power supply line, a fuse and an insulating layer, the fuse being series-connected in the power supply line, and a junction between the fuse and the power supply line being encased by the insulating layer; two ends of the fuse are each provided with a pin; a fusible body of the fuse is encapsulated in a ceramic tube; and the insulating layer is two or more layers. In the present utility model, the fuse is series-connected on the power supply line directly, and after two or more injection molding operations, the device is waterproof, as well as being structurally simple, convenient to operate, and low-cost.



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1. An overcurrent protection device disposed on a power supply line, consisting of a power supply line and a power supply plug, characterized in that a fuse is
5 series-connected in the power supply line, and a junction between the fuse and the power supply line is encased by an insulating layer.
2. The overcurrent protection device disposed on a power
10 supply line as claimed in claim 1, characterized in that two ends of the fuse are each provided with a pin.
3. The overcurrent protection device disposed on a power supply line as claimed in claim 1, characterized in that
15 a fusible body of the fuse is encapsulated in a ceramic tube.
4. The overcurrent protection device disposed on a power supply line as claimed in claim 1, characterized in that
20 the insulating layer is two or more layers.

Overcurrent protection device disposed on power supply
line

Technical field

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The present utility model relates to an injection-molded overcurrent protection device disposed on a power supply line, being an improvement to an overcurrent protection device.

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Background art

In one type of existing overcurrent protection device, a fuse is disposed in a plug or connector. Due to the large number of types of plugs or connectors, many types of plugs or connectors need to be specially designed in order to set up overcurrent protection devices, and this increases costs. In another type, a box containing a circuit board is designed and placed on a power supply line, so the cost is high. Furthermore, if the problem of waterproofing is to be taken into account in the abovementioned overcurrent protection devices, the structure is often relatively complex, and operation is inconvenient.

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Summary of the invention

The present utility model overcomes shortcomings in the prior art, providing an injection-molded overcurrent protection device disposed on a power supply line; a fuse is series-connected on the power supply line directly, and after two or more injection molding operations, the device is waterproof, as well as being structurally simple, convenient to operate, and low-cost.

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To solve the abovementioned technical problem, the present utility model is realized through the following technical solution: the present utility model consists of a power supply line, a fuse and an insulating layer,

the fuse being series-connected in the power supply line, and a junction between the fuse and the power supply line being encased by the insulating layer.

Two ends of the fuse are each provided with a pin.

5 A fusible body of the fuse is encapsulated in a ceramic tube.

The insulating layer is two or more layers.

Compared with the prior art, the overcurrent protection device of the present utility model has the
10 following beneficial effects:

1. Due to the fact that it has undergone two or more injection-molding operations, it has good water resistance.

2. Due to the fact that the fuse is series-connected
15 on the power supply line directly, the structure is simple, operation is simple, and the cost is low.

Brief description of the drawings

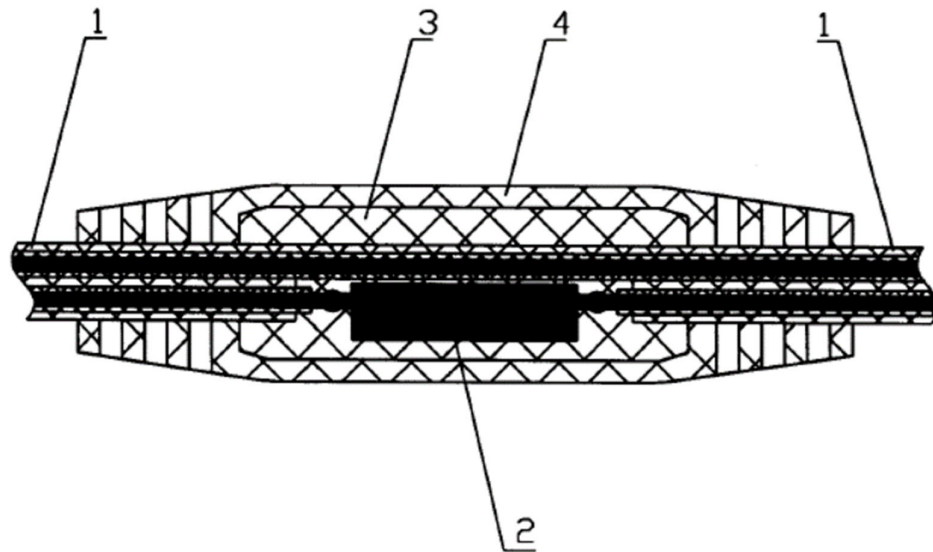
20 Fig. 1 is a longitudinal sectional drawing of the present utility model.

Fig. 2 is a longitudinal sectional drawing of the fuse.

The present utility model is described in further
25 detail below in conjunction with the drawings and specific embodiments:

As shown in Fig. 1, the present utility model consists of a power supply line 1, a fuse 2, an inner insulating layer 3 and an outer insulating layer 4, wherein the fuse 2 consists of pins 2.1, a fusible body 2.2 and a ceramic tube 2.3, as shown in Fig. 2. Using a small knife, half of an outer insulating layer of the power supply line 1 is stripped from the middle thereof, to expose two wires. One wire is cut through; ends thereof
30 have an inner insulating layer stripped therefrom separately, and are connected to the pins 2.1 at two ends of the fuse 2. These junctions are placed in a mold cavity and the inner insulating layer 3 is formed by injection

molding. The inner insulating layer 3 is placed in a mold cavity and the outer insulating layer 4 is formed by injection molding. A required plug and connector are separately injection molded on two ends of the power supply line 1.



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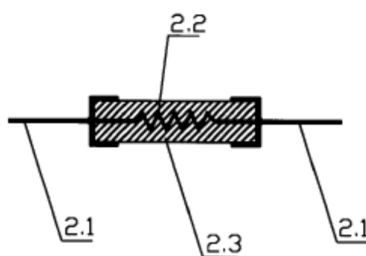
Fig. 1

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Fig. 2