

Title (en)

Glow plug for diesel engine with integrated electronics and heat sink

Title (de)

Glühkerze für einen Dieselmotor mit integrierter Elektronik und Wärmesenke

Title (fr)

Bougie à incandescence d'un moteur Diesel avec électronique intégrée et dissipateur de chaleur

Publication

EP 1669675 A1 20060614 (EN)

Application

EP 05025454 A 20051122

Priority

JP 2004340404 A 20041125

Abstract (en)

According to the present invention, a glow plug (100) for a diesel engine is provided which includes a heating element (22), a semiconductor chip (61) that includes therein a power transistor, and a heat sink (50). The heating element (22) is configured to generate heat when supplied with electric power, so as to heat the air-fuel mixture within a cylinder of the diesel engine. The power transistor in the semiconductor chip (61) is configured to be selectively turned on and off so as to intermittently supply electric power to the heating element. The heat sink (50) serves to dissipate heat generated by operation of the semiconductor chip (61) so as to prevent the semiconductor chip from being damaged due to the heat. With such a configuration, it becomes possible to integrate the semiconductor chip (61) into the glow plug (100) while providing the glow plug with a capability of effectively dissipating the heat generated by operation of the semiconductor chip.

IPC 8 full level

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CPC (source: EP)

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Citation (applicant)

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- WO 0120229 A1 20010322 - BOSCH GMBH ROBERT [DE], et al
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Citation (search report)

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- [A] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 05 30 April 1998 (1998-04-30)

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DOCDB simple family (application)

EP 05025454 A 20051122; DE 602005026766 T 20051122; EP 10156649 A 20051122; JP 2004340404 A 20041125