

Title (en)
INTEGRATED CIRCUIT USED IN SMART POWER TECHNOLOGY

Title (de)
INTEGRIERTE SCHALTUNG IN SMART-POWER-TECHNOLOGIE

Title (fr)
CIRCUIT INTEGRE RELEVANT DE LA TECHNOLOGIE DITE "SMART POWER"

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Application
EP 05779140 A 20050816

Priority
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Abstract (en)
[origin: WO2006040211A1] The invention relates to an integrated circuit used in smart power technology, particularly for use in the automobile domain, which has at least the following: high-voltage connections (a1, a2) for connecting to a high-voltage (U_H); a smart circuit device (3) with low-voltage components, and; an ESD protective circuit (4), which is connected between the high-voltage connections (a1, a2) and which has a MOSFET (T1) connected via its source (S) and its drain (D) to the high-voltage connections (a1, a2). The gate (G) of the MOSFET is connected via a resistor (Rg) to the source (S) of the MOSFET. The gate resistor (Rg) is made of polycrystalline silicon. According to the invention, a high ESD strength with a relatively low surface use i.e. low costs can be achieved by using the poly-resistor as a gate resistor (Rg). A protective diode (D1, D2) can be advantageously connected between the source (S) and gate (G) and between the gate (G) and drain (D) of the MOSFET (T1) each time in a blocking direction, this protective diode blocking above the supply voltage (U_H).

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