

Title (en)

SEMICONDUCTOR DIODE, ELECTRONIC COMPONENT, VOLTAGE SOURCE INVERTER AND CONTROL METHOD

Title (de)

HALBLEITERDIODE, ELEKTRONISCHES BAUTEIL, SPANNUNGSZWISCHENKREISUMRICHTER UND STEUERVERFAHREN

Title (fr)

DIODE A SEMI-CONDUCTEUR, COMPOSANT ELECTRONIQUE, CONVERTISSEUR DE CIRCUIT DE TENSION INTERMEDIAIRE ET PROCEDE DE COMMANDE

Publication

EP 1597771 A2 20051123 (DE)

Application

EP 04712009 A 20040218

Priority

- EP 2004001541 W 20040218
- DE 10308313 A 20030226

Abstract (en)

[origin: WO2004077573A2] The invention relates to a semiconductor diode, an electronic component and to a voltage source inverter. According to the invention, the semiconductor diode having at least one pn-transition can be switched between a first state and a second state. In comparison to the first state, the second state has a greater on-state resistance and a smaller accumulated charge, and the pn-transition is capable of blocking both in the first state as well as in the second state with at least one predetermined blocking ability. An MOS-controlled diode is hereby obtained in which the transition from the on-state to the blocking state is simplified and is thus not critical with regard to the temporal sequence of the control pulses.

IPC 1-7

H01L 29/739; **H02M 5/458**

IPC 8 full level

H01L 29/36 (2006.01); **H01L 29/739** (2006.01)

CPC (source: EP US)

H01L 29/36 (2013.01 - EP US); **H01L 29/7391** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US)

Citation (search report)

See references of WO 2004077573A2

Designated contracting state (EPC)

AT DE FR GB IT

DOCDB simple family (publication)

WO 2004077573 A2 20040910; **WO 2004077573 A3 20041223**; CN 100483736 C 20090429; CN 1754263 A 20060329; DE 10308313 A1 20040916; DE 10308313 B4 20100819; EP 1597771 A2 20051123; JP 2006519485 A 20060824; US 2006071280 A1 20060406; US 7582939 B2 20090901

DOCDB simple family (application)

EP 2004001541 W 20040218; CN 200480005203 A 20040218; DE 10308313 A 20030226; EP 04712009 A 20040218; JP 2006501876 A 20040218; US 54717504 A 20040218