

Title (en)  
METAL-INSULATOR VARACTOR DEVICES

Title (de)  
METALL-ISOLATOR-VARACTOR-BAUELEMENTE

Title (fr)  
DISPOSITIFS VARACTOR METAL-ISOLANT

Publication  
**EP 1779440 A4 20090415 (EN)**

Application  
**EP 05769417 A 20050707**

Priority  

- US 2005024207 W 20050707
- US 58649304 P 20040708
- US 11358705 A 20050425

Abstract (en)  
[origin: WO2006014574A2] A varactor is configured with first and second conducting layers, spaced apart from one another such that a given voltage can be applied across the first and second conducting layers. Further, an insulator arrangement includes at least one insulator layer disposed between the first and second conducting layers, configured to cooperate with the first and second conducting layers to produce a charge pool which changes responsive to changes in the given voltage such that a device capacitance value between the first and second conducting layers changes responsive to the given voltage. The insulator arrangement can include one layer, two distinct layers or more than two distinct layers. One or more of the layers can be an amorphous material. A zero-bias voltage version of the varactor is also described.

IPC 8 full level  
**H01L 27/08** (2006.01); **H01L 21/02** (2006.01); **H01L 29/88** (2006.01); **H01L 29/93** (2006.01)

CPC (source: EP KR)  
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Citation (search report)  

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- [X] US 2004100817 A1 20040527 - SUBRAMANIAN CHITRA K [US], et al
- [A] US 5019530 A 19910528 - KLEINSASSER ALAN W [US], et al
- [A] US 3613011 A 19711012 - WOOD PAUL W
- [A] US 5895934 A 19990420 - HARVEY JAMES F [US], et al
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Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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EP 1779440 A2 20070502; EP 1779440 A4 20090415; JP 2008506265 A 20080228; KR 20070083457 A 20070824

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