

Title (en)  
PASSIVATION OF GAN BASED FETS

Title (de)  
PASSIVIERUNG EINES GaN FETS

Title (fr)  
PASSIVATION DE TRANSISTORS A EFFET DE CHAMP A BASE DE GAN

Publication  
**EP 1208607 A1 20020529 (EN)**

Application  
**EP 00957262 A 20000816**

Priority  
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• US 14870299 P 19990816

Abstract (en)  
[origin: WO0113436A1] Surface passivation of GaN based FETs, including undoped AlGaN/GaN HEMTs and MISFETs, and doped GaN MESFETs, reduces or eliminates the surface effects responsible for limiting both the RF current and breakdown voltages of the devices. Passivation is provided through deposition of a layer (32) made of a dielectric, such as silicon nitride, silicon dioxide or polyimide, on a barrier layer (16) between a source (24) and a drain (25) of the FET (10).

IPC 1-7  
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IPC 8 full level  
**H01L 21/285** (2006.01); **H01L 21/335** (2006.01); **H01L 21/338** (2006.01); **H01L 23/522** (2006.01); **H01L 29/778** (2006.01); **H01L 29/812** (2006.01);  
**H01L 29/20** (2006.01)

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**H01L 21/28587** (2013.01); **H01L 23/5221** (2013.01); **H01L 29/66462** (2013.01); **H01L 29/66856** (2013.01); **H01L 29/7782** (2013.01);  
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