



imecDARE

DARE350

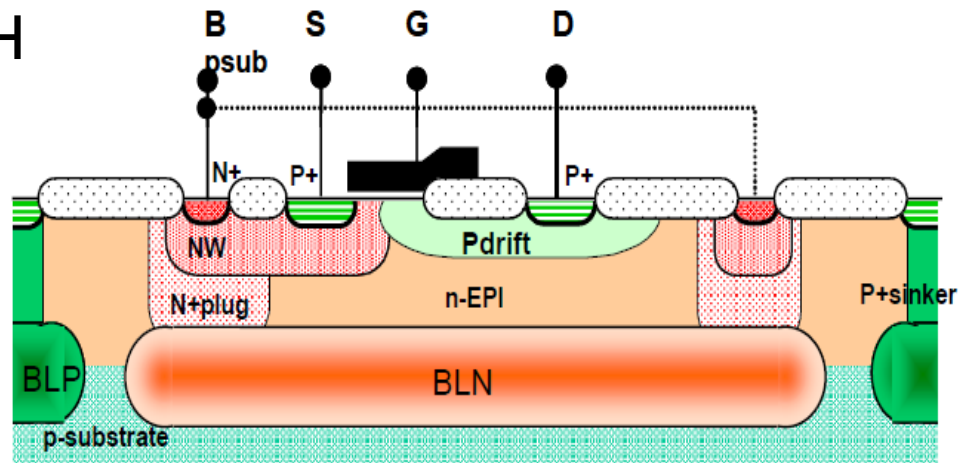
ON SEMICONDUCTOR INTELLIGENT INTERFACE TECHNOLOGY

STATUS



I3T80 TECHNOLOGY

- ▶ 0.35 μm digital process with analog/mixed-signal capability and high voltage devices (BCD)
- ▶ 3.3V logic in combination with 80V
- ▶ up to 5 metal layers
- ▶ N-epitaxy on P-substrate
- ▶ MiM, MoM, Hi-ohmic polysilicon
- ▶ OTP, FLASH



WHY I3T80?

▶ i3t80@amicsa

- (2010) High power distribution, control and monitoring ASIC for space (ARQUIMEA/UC3M/EADS-CASA)
- (2012) Model accuracy for a smart power ASIC chip set for space (ARQUIMEA/UC3M/EADS-CASA)
- (2014) A radiation tolerant point-of-load buck DC-DC converter ASIC (CERN)

... and other 0.35 μ m technologies with HV/NVRAM options

▶ i3t80@imec

- MPW runs through Europractice
- Good contacts with fab in Oudenaarde (BE)

... and expertise to generate/maintain/support all the library data for a full digital and a mixed-signal flow for many years

STATUS

- ▶ Initial work started in Q4 2014
- ▶ Focus on low voltage
- ▶ ELT pcell
- ▶ ELT integration into LVS and PEX decks
- ▶ RAD check

- ▶ High voltage devices
 - Review available irradiation data
 - Consult I3T80 technology specialists @ OnSemi

- ▶ No project defined yet for digital library development



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