## Overview npn13g2l



- In previous releases low-frequency noise parameters included only in VBIC model
  - Parameter (kfn, afn) based on old measurement data (2011)
  - Q4/18 new 1/f noise measurement system installed (ProPlus)

## **Summary:**

- Noise measurements performed on current qualification wafer
  - Operating points:  $V_{BF} = 0.7...0.925V$  (g2, g2l),  $V_{CF} = 1V$ , f = 1Hz...10kHz
- Model parameters extracted for
  - npn13g2l: VBIC

## Example: npn13g2l, Nx=4, El=2.5μm



Simulation with new VBIC parameters shows good agreement with measurement

