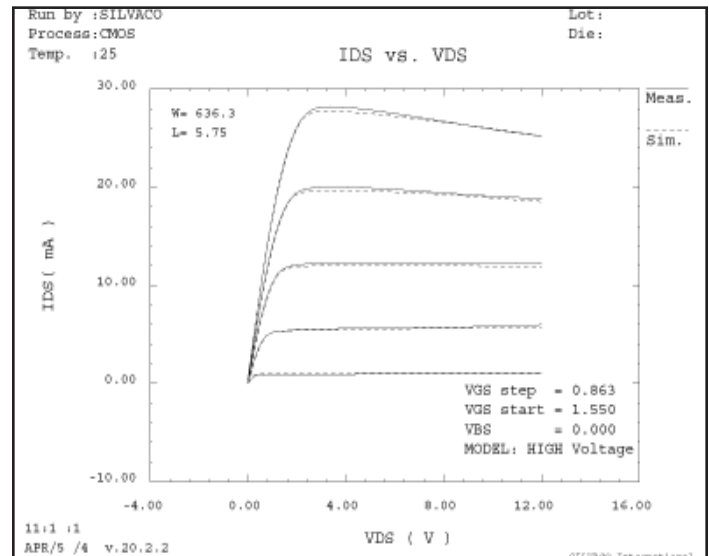
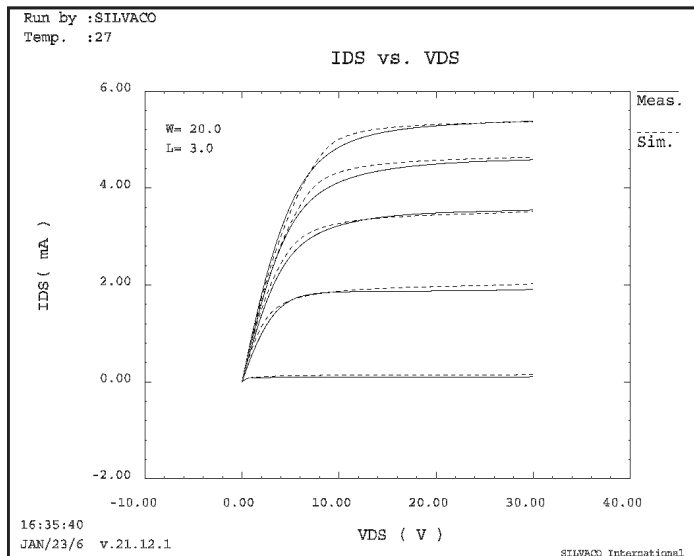
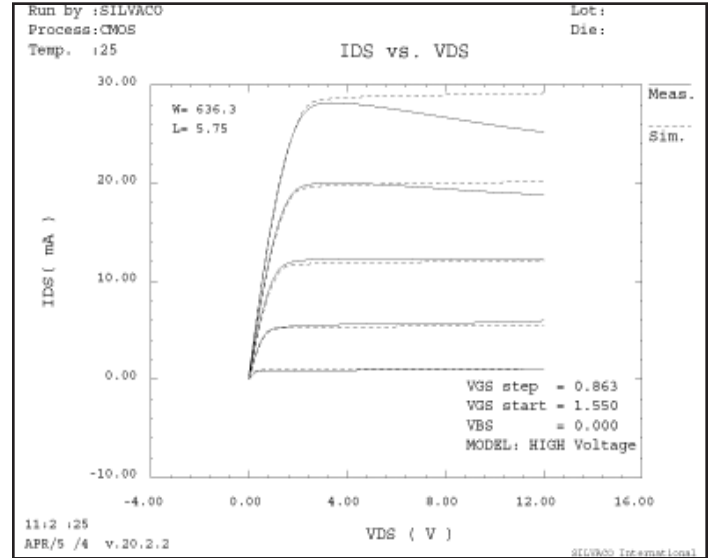
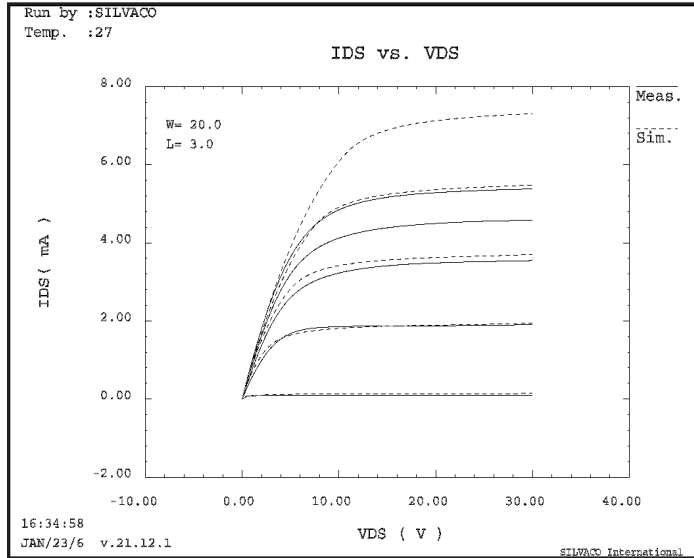




## Benefits From Simucad Model Improvements

- Core parameter set is based on a final version of BSIM3v3.2 and ensures good continuity in the drain current equation and stable convergence
- Easy parameter extractions for modeling engineers who are familiar with BSIM3v3.2



Typical best model fit using BSIM3v3 (top) and Level 88 (bottom) showing bias dependency of velocity saturation.

Typical best model fit using BSIM3v3 (top) and Level 88 (bottom) showing self-heating effects.

## Additional Model Parameters Added to the Core Model

Parameter	Description
PRWD1	First order Vds dependence of external resistance Rds (Forward Mode)
PRWD2	Second order Vds dependence of external resistance Rds (Forward Mode)
PRWS1	First order Vds dependence of external resistance Rds (Reverse Mode)
PRWS2	Second order Vds dependence of external resistance Rds (Reverse Mode)
UD	Vds dependence of mobility degradation
PCSE	Subthreshold slope and reverse short channel effect parameter
CCSE	Subthreshold slope and reverse short channel effect parameter
VSATG	Vgs dependence of VSAT
VSATB	Vbs dependence of VSAT