

## LMR51450 PSPICE TRANSIENTMODEL\_FeatureandLimitations

### \* Model Usage Notes:

#### \* A. The following features have been modeled

- \* 1. Output Voltage Setting
- \* 2. Frequency Selection
- \* 3. Internal Fixed Soft-Start
- \* 4. Minimum ON-Time, Minimum OFF-Time and Frequency Foldback
- \* 5. Low-side FET Zero-Crossing
- \* 6. Current Sense and Positive Overcurrent Protection(OCP)
- \* 7. Over Voltage Protection(OVP)
- \* 8. Power Good
- \* 9. UVLO Protection
- \* 10. BOOT functionality

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#### \* B. Features have not been modelled

- \* 1. Operating Quiescent Current
- \* 2. Shutdown Current
- \* 3. Temperature dependent characteristics
- \* 4. Spread Spectrum
- \* 5. Ground pins have been tied to 0V internally. Therefore, this model cannot

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#### \* C. Application Notes

- \* 1. The parameters MODEL has been used to reach the steady state
  - \* keep MODEL=0 to observe startup behavior
  - \* keep MODEL=1 and appropriate IC on Inductor and capacitor to observe for faster Steady State