

\* TPS544x28  
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\*\* Released by: Texas Instruments Inc.  
\* Part: TPS544x28  
\* Date: 17September2025  
\* Model Type: TRANSIENT  
\* Simulator: SIMPLIS  
\* Simulator Version: 9.00a  
\* EVM Order Number: TPS544B28EVM, TPS544B28RBHEVM  
\* EVM Users Guide: SLVUD08 – JUNE 2024, SLVUD71 – JUNE 2025  
\* Datasheet: SLVSHP8 – APRIL 2024  
\* Topologies Supported: Buck  
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\* Model Version: Final 1.00  
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\* Updates:  
\*  
\* Final 1.00  
\* Release to Web.  
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\* Model Usage Notes:  
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\* A. Features have been modelled  
\*     1.       Output Voltage Setting  
\*     2.       Programmable Soft-Start  
\*     3.       Frequency and Operation Mode Selection  
\*     4.       Low-side FET Zero-Crossing  
\*     5.       Current Sense and Positive Overcurrent Protection (OCP)  
\*     6.       Low-side FET Negative Current Limit  
\*     7.       Power Good  
\*     8.       Over Voltage Protection (OVP)  
\*     9.       Under Voltage Protection (UVP)  
\*    11.      EN/VIN UVLO Protection  
\*    12.      BOOT functionality  
\*  
\* B. Features have not been modelled  
\*     1.       Operating Quiescent Current  
\*     2.       Shutdown Current  
\*     3.       Temperature dependent characteristics  
\*     4.       Ground Pins have been tied to 0V internally and hence model does not support Inverting  
\*       topologies.  
\*     5.       Hiccup or Latch-off  
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\* C. Application Notes  
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\*     1.       The parameter HAS\_POP\_ANALYSIS has been used to reach the steady state faster.  
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