

## TPS71750DSET Low-Dropout Linear Regulator

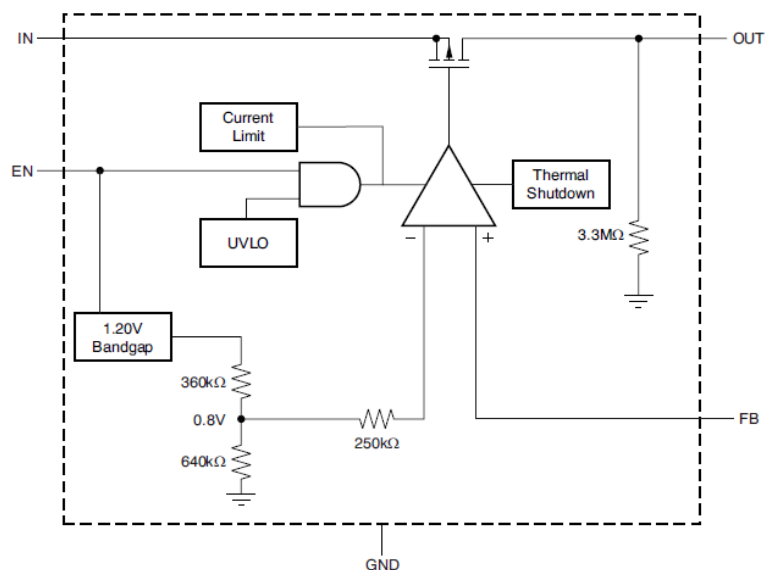
### General Description:

The TPS717xx family of low-dropout (LDO), low-power linear regulators offers very high power supply rejection (PSRR) while maintaining very low 45mA ground current in an ultra-small, five-pin SC70 package. The family uses an advanced BiCMOS process and a PMOSFET pass device to achieve fast start-up, very low noise, excellent transient response, and excellent PSRR performance. The TPS717xx is stable with a 1.0mF ceramic output capacitor, and uses a precision voltage reference and feedback loop to achieve a worst-case accuracy of 3% over all load, line, process, and temperature variations. It is fully specified from  $T_J = -40^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$  and is offered in a small SC70-5 package, a 2mm x 2mm SON-6 package with a thermal pad, and a 1.5mm x 1.5mm SON package, which are ideal for small form factor portable equipment such as wireless handsets and PDAs.



### Key Features:

- 150mA Low-Dropout Regulator with Enable
- Low IQ: 45mA (typical)
- Available in Multiple Output Versions:
  - Fixed Output with Voltages from 0.9V to 5.0V Using Innovative Factory EEPROM Programming
  - Adjustable Output Voltage from 0.9V to 6.2V
- Ultra-High PSRR:
  - 70dB at 1kHz, 67dB at 100kHz and 45dB at 1MHz
- Low Noise: 30mV typical (100Hz to 100kHz)
- Stable with a 1.0mF Ceramic Capacitor
- Excellent Load/Line Transient Response



- 3% Overall Accuracy (over Load/Line/Temp)
- Over-Current and Over-Temperature Protection
- Very Low Dropout: 170mV Typical at 150mA
- Small SC70-5, 2mm x 2mm SON-6, and 1.5mm x 1.5mm SON-6 Packages

## Applications:

- Mobile Phone Handsets
- Wireless LAN, Bluetooth
- PDAs and Smart Phones

## Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
TPS71701DCKT	1703393	65M6356	LDO Voltage Regulator IC
TPS71709DSER	NA	53M4003	LDO Voltage Regulator IC
TPS71710DCKT	1329603	30M1852	LDO Voltage Regulator IC
TPS71712DCKT	1755489	34R9238	LDO Voltage Regulator IC
TPS71713DCKT	1329604	27M1102	LDO Voltage Regulator IC
TPS71715DCKT	1329605	62M0761	LDO Voltage Regulator IC
TPS71718DCKTG4	1329606	62M0762	LDO Voltage Regulator IC
TPS71721DCKT	1690366	39P9376	LDO Voltage Regulator IC
TPS71725DCKT	1329607	30M1858	LDO Voltage Regulator IC
TPS71726DCKTG4	1329608	62M0764	LDO Voltage Regulator IC
TPS71730DCKR	1755490	85K1728	LDO Voltage Regulator IC
TPS71730DCKT	1755490	34R9239	LDO Voltage Regulator IC
TPS71733DCKT	1755491	34R9240	LDO Voltage Regulator IC
TPS71750DSET	1782844	51R6146	LDO Voltage Regulator IC