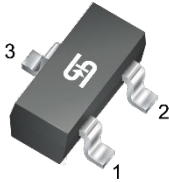




# TSL9A12 200mA, 6V, Nanopower $I_Q$ 600nA Low-Dropout Linear Regulator with Enable

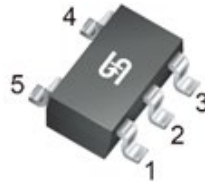
## SOT-23



### Pin Definition:

1. Ground
2. Output
3. Input

## SOT-25



### Pin Definition:

1. Input
2. Ground
3. Enable
4. NC
5. Output

## Description

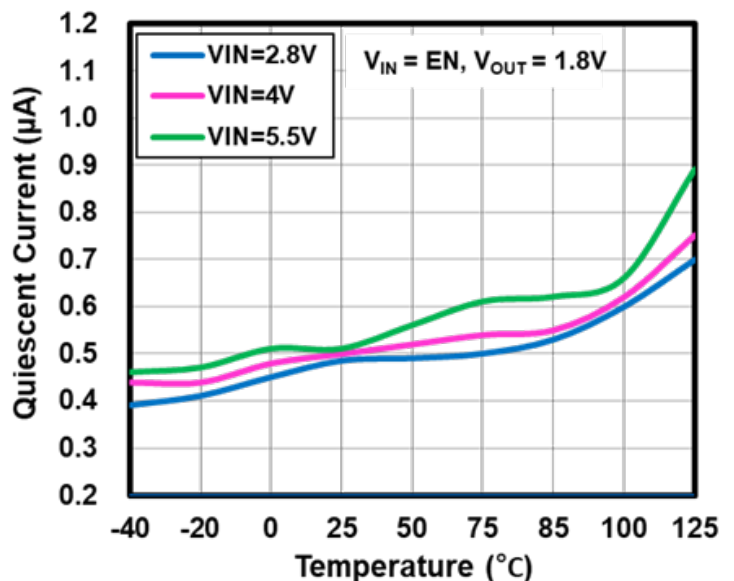
The TSL9A12 series are ultra-low quiescent current regulator features low dropout voltage and low current in the standby mode with 600nA quiescent current at no load. The TSL9A12 series is ideally suited for standby micro-control-unit systems, especially for always-on applications like portable, and other battery-operated systems. The TSL9A12 series retains all the features that are common to low dropout regulators including a low dropout PMOS pass device, short circuit protection and thermal shutdown.

## Key Features

- Input voltage up to 6V
- Fixed output voltages 1.8V and 3.3V
- Ultra-low quiescent current 600nA (typ.)
- Output voltage accuracy  $\pm 2\%$
- Dropout voltage 400mV @  $I_O$ : 200mA ( $V_{OUT}=3.3V$ )
- Stable with 1 $\mu$ F ceramic capacitors
- Current limit protection
- Over temperature protection
- RoHS Compliant
- Halogen-Free

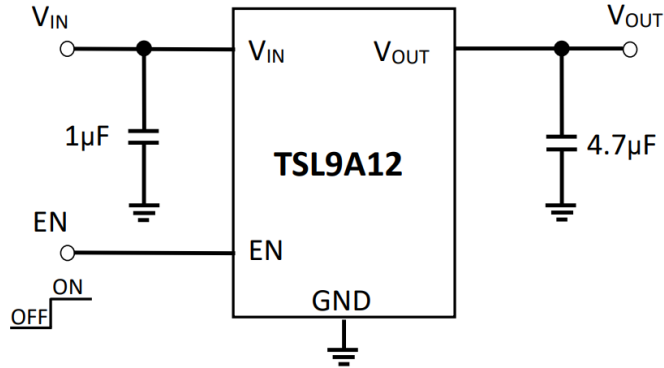
## Applications

- Portable battery powered equipment
- Low power microcontrollers
- Wireless communication equipment





### Typical Application Circuit



### Product Portfolio

Part Number	Package	V <sub>IN</sub> Max. (V)	V <sub>OUT</sub> (V)	I <sub>OUT</sub> (mA)	I <sub>Q</sub> Typ. (µA)	I <sub>Q</sub> Max. (µA)	V <sub>DROP</sub> Max. (mV)	Enable
TSL9A12V18CX	SOT-23	6	1.8	200	0.6	1.2	670 @200mA	No
TSL9A12V18CX5	SOT-25							Yes
TSL9A12V33CX	SOT-23	6	3.3	200	0.6	1.2	575 @200mA	No
TSL9A12V33CX5	SOT-25							Yes

### Ordering Information

Ordering Part Number	Package	Reel (pcs)	Reel Size (inch)	Inner Box (pcs)	Carton (pcs)	Carton Size (mm)	Gross Weight (kg/ carton)
TSL9A12V18CX RFG	SOT-23	3,000	7	12,000	144,000	390 * 290 * 400	8.24
TSL9A12V18CX5 RFG	SOT-25						
TSL9A12V33CX RFG	SOT-23						
TSL9A12V33CX5 RFG	SOT-25						

For more information or other products, please visit TSC website <https://www.taiwansemi.com/>