R1161N Series

Manual Mode Shift Low Voltage 300mA LDO

The R1161N Series are CMOS-based manual mode switching LDO regulators with ECO pin featuring 300mA output. By inputting control signals to the ECO pin, the mode of the regulator can be switched to low power mode or fast response mode, thus making both active and sleep modes available for the system. The CE pin can switch the regulator into standby mode.

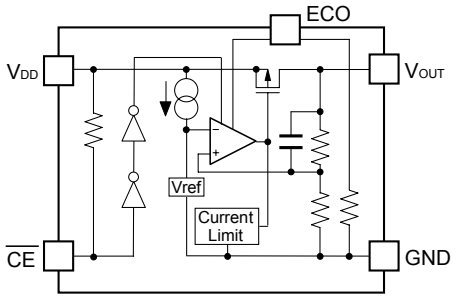
FEATURES

- Supply Current (I_{SS1})* ····· Typ. 60μA (Fast mode, V_{IN}=V_{SET}+1.0V)
- Supply Current (I_{SS2})* ····· Typ. 4.5μA (Low power mode, same as above)
- Standby Current ($I_{standby}$) ····· Typ. 0.1μA (Same as above, In standby)
- Dropout Voltage (V_{DIF})* ····· Typ. 0.23V (Fast mode, I_{OUT}=300mA)
  Typ. 0.24V (Low power mode, I_{OUT}=300mA)
- Ripple Rejection (RR) ····· Typ. 65dB (f=1kHz, Fast mode)
- Input Voltage Range (V_{IN}) ····· 1.4V to 6.0V (Absolute maximum rating : 6.5V)
- Output Voltage Range (V_{OUT}) ··· 0.8V to 3.3V (Internally fixed)
- Output Voltage Accuracy ····· ± 2% (Fast mode)
  ± 3% (Low power mode)
- Temp. coeff. of Output Voltage ····· Typ. ± 100ppm/°C
- Line Regulation ····· Typ. 0.01%/V (Fast mode)
- Fold-back Protection Circuit ····· Current limit Typ. 50mA
- Auto-discharge Function ····· D Version
- Package ····· SOT-23-5
- Ceramic capacitors can be used. ··· 1μF or more (V_{SET} ≥ 1.0V)

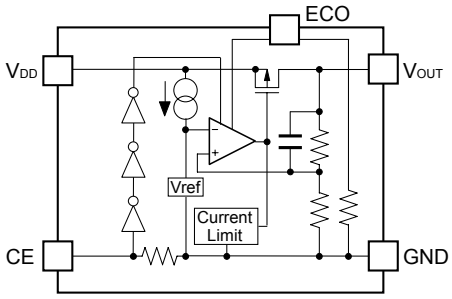
*) at V_{SET}=2.8V

BLOCK DIAGRAMS

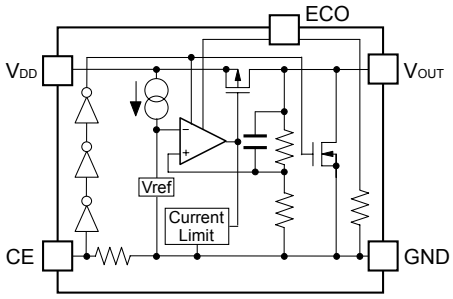
R1161Nxx1A
($\overline{CE}$ pin "L" active)



R1161Nxx1B
(CE pin "H" active)



R1161Nxx1D
(With Auto-discharge function)



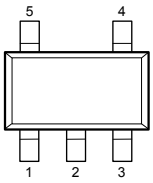
SELECTION GUIDE

Halogen Free	Package	Q'ty per Reel	Part No.
H/F	SOT-23-5	3,000 pcs	R1161Nxx1∗-TR-FE

xx : Specify the output voltage within the range of 0.8V (08) to 3.3V (33) in 0.1V steps.
∗ : Select the polarity of the CE pin from (A) "L" active, (B) "H" active or (D) "H" active with auto-discharge function.

PACKAGE (Top View)

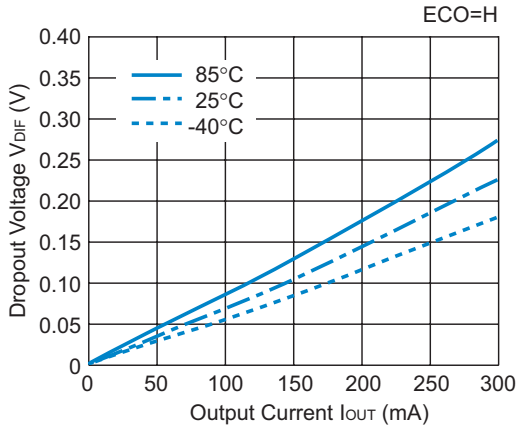
SOT-23-5



1	V_{DD}
2	GND
3	$\overline{CE}$ or CE
4	ECO
5	V_{OUT}

TYPICAL CHARACTERISTIC

R1161N261x Dropout Voltage vs. Output Current (Fast Response Mode)



APPLICATIONS

- Power source for hand-held communication equipment, cameras, and VCRs
- Power source for battery-powered equipment
- Very stable voltage reference

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