300mA Ultra-Fast Output Voltage LDO Regulator

General Description

The iD9305 is a 300mA with fixed output voltage options ranging from 1.05V to 1.4V, low dropout and low noise linear regulator with high ripple rejection ratio and fast turn-on time.

It includes a reference voltage source, an error amplifier, driver transistors and an internal current limiter. The current limiter's holdback circuit operates as a short circuit protection.

The iD9305 works well with low ESR ceramic capacitors, suitable wireless battery-powered applications with stringent space requirements and demanding performance. It also offers ultra low noise output and has low quiescent current.

Features

- Ultra-Low-Noise application
- Wide 2.5V to 6V Operating Range
- Quick Start-Up
- Four Fixed Voltage Options Available
- Current Limiting Protection
- Thermal Shutdown Protection
- Standby Current Less Than 0.1μA
- Auto Discharge

Applications

- Battery-Powered Equipment
- Portable Instruments
- Digital Camera
- WLAN Communication
- Hand-Held Instruments

Ordering Information

iD9305 - □□ □□□□ □

Packing
R: Tape and Reel

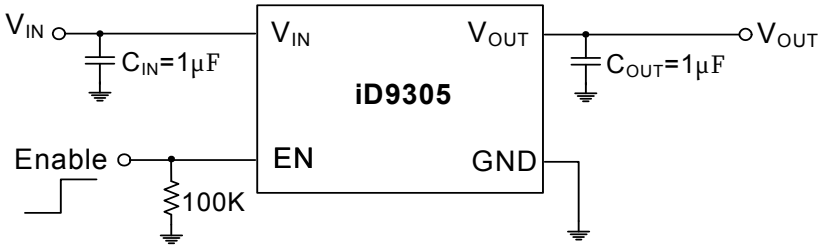
Package
A30:SOT23-3
A50:SOT23-5
C40:SC-82
C50:SC70-5

Output Voltage	Voltage Code
1.1	11
1.2	12
1.3	13
1.4	14

Marking Information

For marking information, contact our sales representative directly or through an iDESYN distributor located in your area, otherwise visit our website for detail.

Typical Application Circuit



Absolute Maximum Ratings

Supply Voltage V_{IN}	6V
Power Dissipation, P_D @ T_A=25°C	
SC70-5 / SC-82	300mW
SOT23-5 / SOT23-3	400mW
Thermal Resistance, θja	
SC70-5 / SC-82	333°C/W
SOT23-5 / SOT23-3	250°C/W
Lead Temperature	260°C
Storage Temperature	-65°C to 150°C
ESD Susceptibility	
HBM (Human Body Mode)	2kV
MM (Machine Mode)	200V

Recommended Operating Conditions

Input Voltage V_{IN}	2.5V to 6V
EN Input Voltage	0V to 6V
Junction Temperature	-40°C to 125°C
Ambient Operating Temperature	-40°C to 85°C