



ACE5151LB

High PSRR LDO Regulators

Description

ACE5151LB series is a 1.4uA IQ, high accuracy, high PSRR, low dropout linear regulator manufactured by CMOS process. ACE5151LB series voltage regulator has built-in fixed voltage reference, temperature protection, current limiting circuit, phase compensation circuit and low internal resistance MOSFET to achieve ultra-low power consumption, high ripple suppression and low voltage difference.

ACE5151LB series is compatible with ceramic capacitors smaller than tantalum capacitors, and not required by-pass capacitor, which can save more space.

The high-speed response characteristics of ACE5151LB series can cope with the fluctuation of load current, so it is especially suitable for handheld and RF products. By controlling the CE pin on the chip, the output can be turned off, and the power consumption after turning off is only 0uA.

Features

- Maximum Output Current: 400mA (VIN=4.3V, VOUT=3.3V)
- Dropout Voltage: 110mV @ IOUT=100mA
- Operating Voltage Range: 1.8V~5.5V
- Output Voltage Range : 1.2V~5.0V
- High Accuracy : ±1%
- Low Quiescent current: 1.4uA (TYP.)
- Standby Current: 0uA (TYP.)
- High Ripple Rejection: 70dB @ 1KHz (ACE5151LB33)
- Built-in temperature protection and current limiting protection

Application

- Mobile phones
- Cordless telephone equipment
- Cameras, Video cameras
- Bluetooth and other radio frequency products
- Reference voltage sources



ACE5151LB

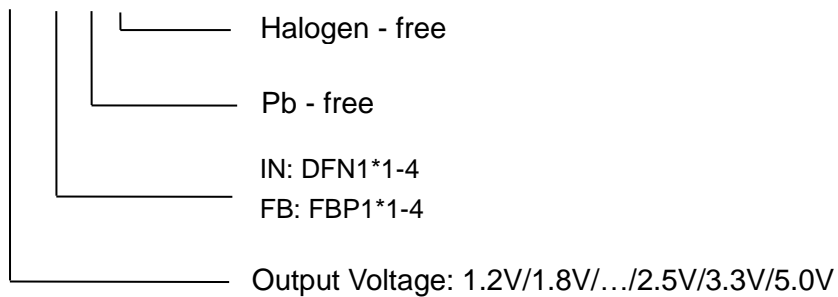
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Absolute Maximum Rating

Parameter	Symbol	Ratings	Units
Input Voltage	V_{IN}	-0.3~6.5	V
CE Pin Voltage	V_{CE}	$V_{IN} - 0.3 \sim V_{IN} + 0.3$	V
V_{OUT} Voltage	V_{OUT}	$V_{IN} - 0.3 \sim V_{IN} + 0.3$	V
V_{OUT} Current	I_{OUT}	600	mA
Internal Power Dissipation	P_d	0.5	W
Thermal resistance (Junction to air)	θ_{JA}	250	$^{\circ}C/W$
Operating Ambient Temperature Range	T_{opr}	-40~85	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}C$
Maximum junction temperature	T_J	-40~150	$^{\circ}C$

Ordering information

ACE5151LB XX XX + H





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Notes

ACE does not assume any responsibility for use as critical components in life support devices or systems without the express written approval of the president and general counsel of ACE Technology Co., LTD. As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.