

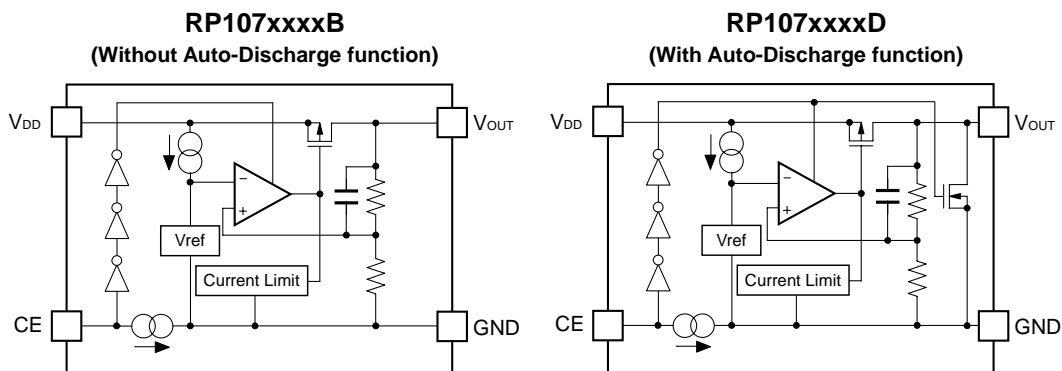
Output Capacitor-less 200mA LDO

The RP107x Series are CMOS-based LDO regulators featuring 200mA output. Since the output capacitor and noise bypass capacitor are able to be reduced and the packages are small DFN(PLP)1212-6, WLCSP-4-P5, and SC-88A, high density mounting on boards are possible. The input voltage (V_{IN}) is as low as Min.1.4V and the output voltage can be set from 1.0V. Supply current is as low as 9.5 μ A compared to existing lines. The CE pin can switch the regulator to standby mode.

FEATURES

- Supply Current (I_{SS}) Typ. 9.5 μ A ($I_{OUT}=0$ mA)
- Standby Current ($I_{standby}$) Typ. 0.1 μ A (In standby)
- Dropout Voltage (V_{DIF}) Typ. 0.27V ($I_{OUT}=200$ mA, $V_{OUT}=2.8$ V)
- Ripple Rejection (RR) Typ. 60dB ($f=1$ kHz, $V_{OUT}>2.5$ V)
- Input Voltage Range (V_{IN}) 1.4V to 5.25V
- Output Voltage Range (V_{OUT}) 1.0V to 4.2V (internally fixed)
- Output Voltage Accuracy $\pm 1\%$
- Temp. coeff. of Output Voltage Typ. ± 100 ppm/ $^{\circ}$ C
- Line Regulation Typ. 0.02%/V
- Fold-back Protection Circuit Current limit Typ. 50mA
- Auto-Discharge function D Version
- Packages WLCSP-4-P5, DFN(PLP)1212-6, SC-88A, SOT-23-5

BLOCK DIAGRAMS



SELECTION GUIDES

Package	Quantity per Reel	Part No.
WLCSP-4-P5	5,000 pcs	RP107Zxx1*-TR-F
DFN(PLP)1212-6	5,000 pcs	RP107Kxx1*-TR
SC-88A	3,000 pcs	RP107Qxx2*-TR-F
SOT-23-5	3,000 pcs	RP107Nxx1*-TR-F

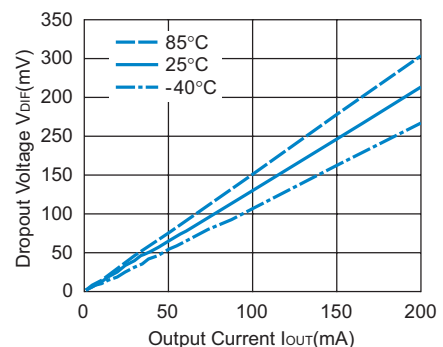
xx : Specify the output voltage within the range 1.0V (10) to 4.2V (42) in 0.1V steps.
 * : Select from (B) without auto-discharge function or (D) with auto-discharge function

PACKAGES (Top View)

WLCSP-4-P5	DFN(PLP)1212-6	SC-88A	SOT-23-5
1 V _{DD}	1 NC	1 CE	1 V _{DD}
2 CE	2 GND	2 NC	2 GND
3 GND	3 CE	3 GND	3 CE
4 V _{OUT}	4 V _{DD}	4 V _{OUT}	4 NC
	5 NC	5 V _{DD}	5 V _{OUT}
	6 V _{OUT}		

TYPICAL CHARACTERISTIC

RP107x30xx Dropout Voltage vs. Output Current



APPLICATIONS

- Power source for hand-held communication equipment, camera and VCRs
- Power source for home appliances
- Power source for battery-powered equipment