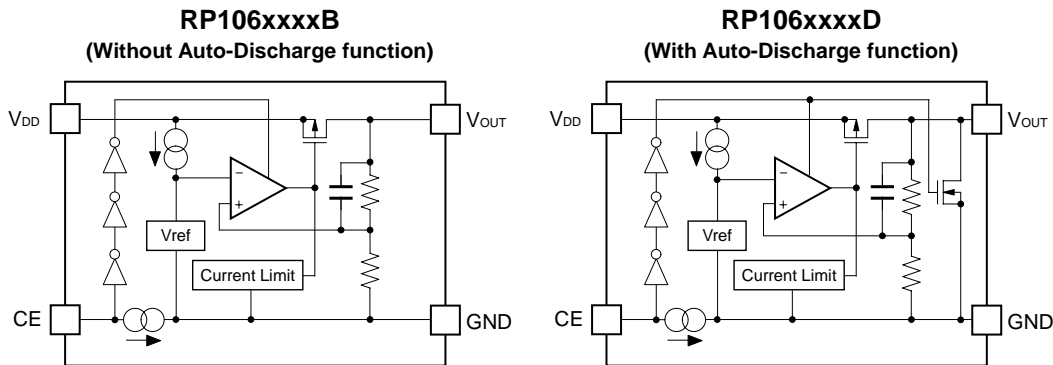


The RP106x Series are CMOS-based LDO regulators featuring 400mA output. The input voltage as low as Min. 1.0V and the output voltage can be set from 0.7V. The output voltage accuracy has been improved to $\pm 0.8\%$ and due to a built-in transistor with low on-resistance of 0.55 Ω (at $V_{OUT}=1.5V$), RP106x provides a low dropout voltage. The CE pin can switch the regulator to standby mode. In addition to SOT-23-5 and SC-88A packages, a 0.69mm square WLCSP-4-P5 package and a 1.2mm square DFN(PLP)1212-6 package are also available.

FEATURES

- Supply Current (I_{SS}) Typ. 48 μA ($V_{IN}=\text{SET } V_{OUT}+1V$)
 - Standby Current ($I_{standby}$) Typ. 0.1 μA (Same as above, CE="L")
 - Dropout Voltage (V_{DIF}) Typ. 0.22V ($I_{OUT}=400mA, V_{OUT}=1.5V$)
 - Ripple Rejection (RR) Typ. 60dB ($f=10kHz$)
 - Input Voltage Range (V_{IN}) 1.0V to 3.6V
 - Output Voltage Range (V_{OUT}) 0.7V to 1.8V (internally fixed)
 - Output Voltage Accuracy $\pm 0.8\%$
 - Temp. coeff. of Output Voltage Typ. $\pm 60ppm/^{\circ}C$
 - Line Regulation Typ. 0.10%/V
 - Fold-back Protection Circuit Current limit Typ. 110mA
 - Auto-Discharge function D Version
 - Packages WLCSP-4-P5, DFN(PLP)1212-6, SC-88A, SOT-23-5
 - Ceramic capacitors can be used 1 μF or more
- (The above shows specification at $T_{opt}=25^{\circ}C$. Design assurance value at $-40^{\circ}C \leq T_{opt} \leq 85^{\circ}C$ is also available. For details, please refer to the datasheet.)

BLOCK DIAGRAMS



SELECTION GUIDES

Package	Quantity per Reel	Part No.
WLCSP-4-P5	5,000 pcs	RP106Zxx1*-TR-F
DFN(PLP)1212-6	5,000 pcs	RP106Kxx1*-TR
SC-88A	3,000 pcs	RP106Qxx2*-TR-F
SOT-23-5	3,000 pcs	RP106Nxx1*-TR-F

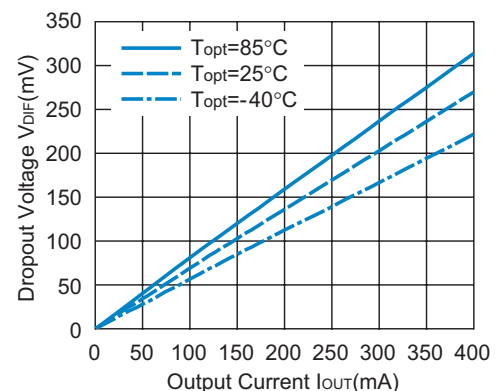
xx : Specify the output voltage within the range 0.7V (07) to 1.8V (18) in 0.1V steps.
 * : Select from (B) without auto-discharge function or (D) with auto-discharge function.

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

RP106x12xx Dropout Voltage vs. Output Current



APPLICATIONS

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



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Ricoh completed the organization of the Lead-free production for all of our products. After Apr. 1, 2006, we will ship out the lead free products only. Thus, all products that will be shipped from now on comply with RoHS Directive.