

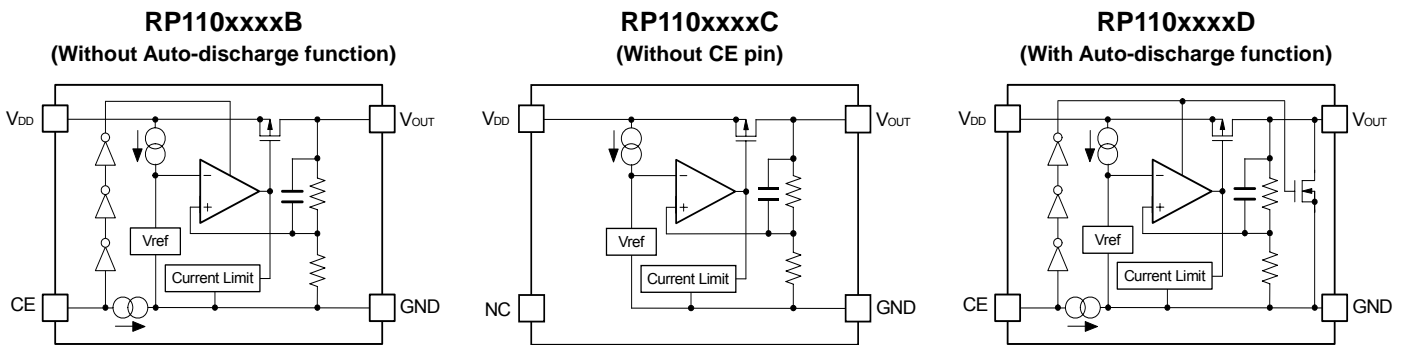
## 0.8mm Square Low Supply Current Low Voltage 150mA LDO

The RP110x Series are CMOS-based LDO regulators featuring 150mA output. The RP110x's typical ultra low supply current of 1 $\mu$ A makes it ideal for use in power supply systems with the sleep mode on. The version that reduced supply current to the lowest possible level by eliminating the CE pin is also available. The input voltage ( $V_{IN}$ ) is as low as Min. 1.4V and the output voltage can be set from 0.8V. RP110x has a constant slope circuit. It means a function of soft-start to reduce the inrush current at power on. In addition to SOT-23-5, SC-88A and DFN1010-4 packages, a 0.8mm square ultra compact DFN(PLP)0808-4 package is also available. RP110x Series contributes to the downsizing of the hand-held equipment because it can use the 0.1 $\mu$ F ceramic capacitor.

### FEATURES

- Supply Current ( $I_{SS}$ ) ..... Typ. 1 $\mu$ A ( $V_{IN}=V_{SET}+1.0V$ )
  - Standby Current ( $I_{standby}$ ) ..... Typ. 0.1 $\mu$ A (Same as above, CE="L", except for C Version)
  - Dropout Voltage ( $V_{DIF}$ ) ..... Typ. 0.28V ( $I_{OUT}=150mA$ ,  $V_{SET}=2.8V$ )
  - Input Voltage Range ( $V_{IN}$ ) ..... 1.4V to 5.25V (Absolute maximum rating : 6.0V)
  - Output Voltage Range ( $V_{OUT}$ ) ..... 0.8V to 3.6V (Internally fixed)
  - Output Voltage Accuracy .....  $\pm 1\%$
  - Temp. coeff. of Output Voltage ..... Typ.  $\pm 100ppm/^{\circ}C$
  - Line Regulation ..... Typ. 0.02%/V
  - Fold-back Protection Circuit ..... Current limit Typ. 50mA
  - Auto-discharge Function ..... D Version
  - Constant Slope Circuit (Soft Start Function)
  - Packages ..... DFN(PLP)0808-4, DFN1010-4, SC-88A, SOT-23-5
  - Ceramic capacitors can be used. ... 0.1 $\mu$ F 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

Halogen Free	Package	Q'ty per Reel	Part No.
H/F	DFN(PLP)0808-4	10,000 pcs	RP110Kxx1*-TR
H/F	DFN1010-4	10,000 pcs	RP110Lxx1*-TR
H/F	SC-88A	3,000 pcs	RP110Qxx2*-TR-FE
H/F	SOT-23-5	3,000 pcs	RP110Nxx1*-TR-FE

xx : Specify the output voltage within the range of 0.8V (08) to 3.6V (36) in 0.1V steps.  
 \* : Select from (B) without auto-discharge function, (C) without CE pin or (D) with auto-discharge function.

### PACKAGES (Top View)

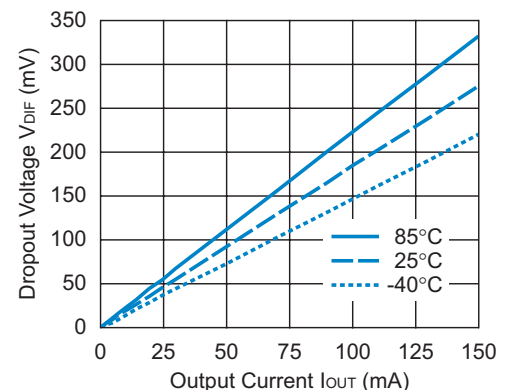
DFN(PLP)0808-4	DFN1010-4	SC-88A	SOT-23-5																																				
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### TYPICAL CHARACTERISTIC

RP110x25xx Dropout Voltage vs. Output Current



### APPLICATIONS

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



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