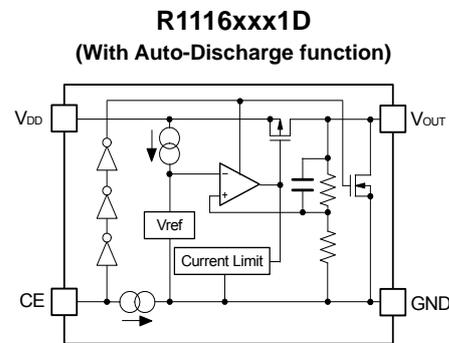
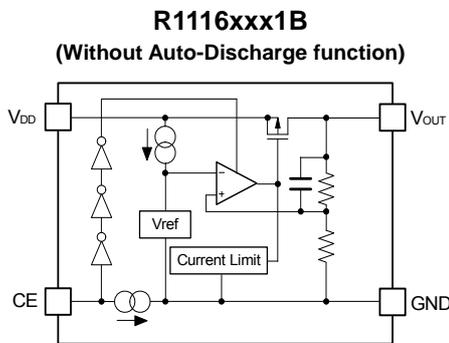


The R1116x Series are CMOS-based seamless LDO regulators featuring 150mA output. Ricoh unique seamless technology smoothly changes transient response according to the output current without switching to a low power mode. Thus, R1116x offers an ultra low supply current in the smaller output current range which is lower than the one of R1114x (Typ. 75 μ A). Additionally, this product can reach low supply current without changing mode only by using the ECO pin, which is required by R11163x Series (Typ. 6 μ A). The CE pin is capable of putting the product into standby mode. The version with an auto-discharge function is also available. The pin-out meets the standard requirements. Ceramic capacitors can be used.

FEATURES

- Supply Current (I_{SS}) Typ. 10 μ A ($V_{IN} = SET V_{OUT} + 1.0$ V)
- Standby Current ($I_{standby}$) Typ. 0.1 μ A (Same as above, CE = "L")
- Dropout Voltage (V_{DIF}) Typ. 0.29 V ($I_{OUT} = 150$ mA, $V_{OUT} = 2.8$ V)
- Ripple Rejection (RR) Typ. 70 dB ($f = 1$ kHz), Typ. 53 dB ($f = 10$ kHz)
- Input Voltage Range (V_{IN}) 1.8 V to 6.0 V
- Output Voltage Range (V_{OUT}) 1.5 V to 4.0 V (internally fixed)
- Output Voltage Accuracy $\pm 1.5\%$ (1.5 V $\leq V_{OUT} \leq 3.4$ V)
 $\pm 2.0\%$ (3.4 V $< V_{OUT} \leq 4.0$ V)
- Temp. coeff. of Output Voltage Typ. ± 100 ppm/ $^{\circ}$ C
- Line Regulation Typ. 0.02%/V
- Fold-back Protection Circuit Current limit Typ. 40 mA
- Auto-Discharge function D Version
- Packages SON1612-6, SOT-23-5
- Ceramic capacitors can be used. 1 μ F or more

BLOCK DIAGRAMS



SELECTION GUIDES

Halogen Free	Package	Q'ty per Reel	Part No.
H/F	SON1612-6	4,000 pcs	R1116Dxx1*-TR-FE
H/F	SOT-23-5	3,000 pcs	R1116Nxx1*-TR-FE

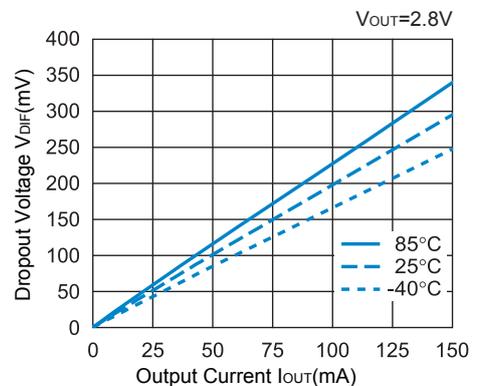
- xx : Specify the output voltage within the range of 1.5 V (15) to 4.0 V (40) in 0.1 V steps.
- * : Select from (B) without auto-discharge function or (D) with auto-discharge function.

PACKAGES (Top View)

SON1612-6		SOT-23-5	
1	CE	1	V _{DD}
2	GND	2	GND
3	V _{DD}	3	CE
4	V _{OUT}	4	NC
5	GND	5	V _{OUT}
6	NC		

TYPICAL CHARACTERISTIC

R1116x281x Dropout Voltage vs. Output Current



APPLICATIONS

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



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Ricoh is committed to reducing the environmental loading materials in electrical devices with a view to contributing to the protection of human health and the environment.

Ricoh has been providing RoHS compliant products since April 1, 2006 and Halogen-free products since April 1, 2012.

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