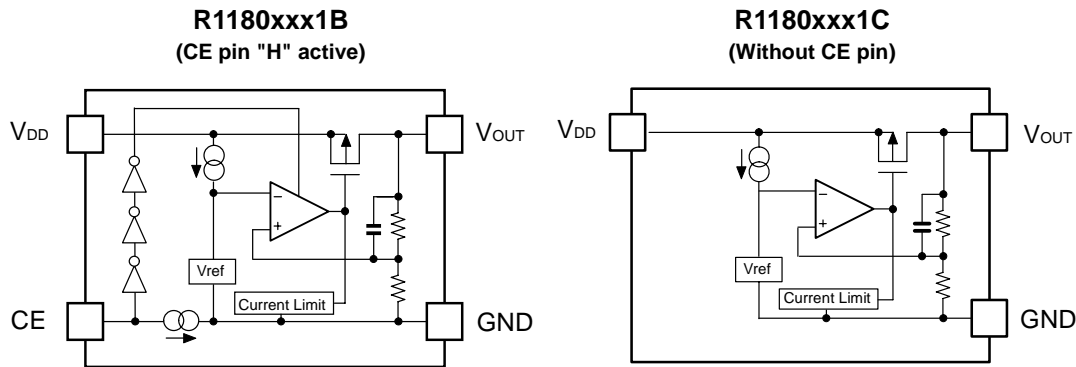


The R1180x Series are CMOS-based LDO regulators featuring 150mA output. R1180x's typical ultra low supply current of 1 $\mu$ A makes it ideal for use in power supplies systems with the sleep mode on. The version that reduced supply current to the lowest possible level by eliminating the CE pin is also available. Ceramic capacitors can be used.

### FEATURES

- Supply Current ( $I_{SS}$ ) ..... Typ. 1 $\mu$ A ( $V_{IN}=\text{SET } V_{OUT}+1\text{V}$ )
- Standby Current ( $I_{\text{standby}}$ ) ..... Typ. 0.1 $\mu$ A (Same as above, CE="L")
- Dropout Voltage ( $V_{\text{DIF}}$ ) ..... Typ. 0.25V ( $I_{\text{OUT}}=150\text{mA}$ ,  $V_{\text{OUT}}=2.8\text{V}$ )
- Input Voltage Range ( $V_{\text{IN}}$ ) ..... 1.7V to 6.0V
- Output Voltage Range ( $V_{\text{OUT}}$ ) ..... 1.2V to 3.6V (internally fixed)
- Output Voltage Accuracy .....  $\pm 2\%$
- Temp. coeff. of Output Voltage ..... Typ.  $\pm 100\text{ppm}/^\circ\text{C}$
- Line Regulation ..... Typ. 0.05%/V
- Fold-back Protection Circuit ..... Current limit Typ. 40mA
- Packages ..... SON1612-6, SC-82AB, SOT-23-5
- Ceramic capacitors can be used. ....0.1 $\mu$ F or more

### BLOCK DIAGRAMS



### SELECTION GUIDES

Package	Quantity per Reel	Part No.
SON1612-6	4,000 pcs	R1180Dxx1*-TR-F
SC-82AB	3,000 pcs	R1180Qxx1*-TR-F
SOT-23-5	3,000 pcs	R1180Nxx1*-TR-F

xx : Specify the output voltage within the range 1.2V (12) to 3.6V (36) in 0.1V steps.

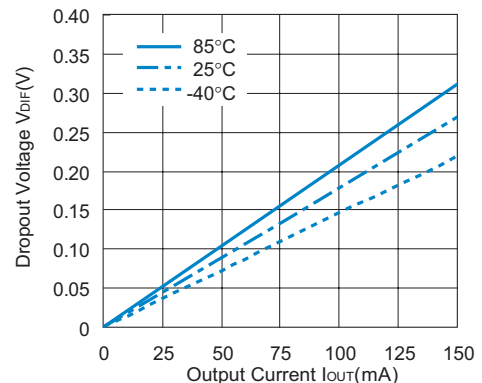
\* : Select the polarity of the CE pin from (B) "H" active or (C) without CE pin.

### PACKAGES (Top View)

SON1612-6		SC-82AB		SOT-23-5	
1	V <sub>DD</sub>	1	CE or NC	1	V <sub>DD</sub>
2	GND	2	GND	2	GND
3	V <sub>OUT</sub>	3	V <sub>OUT</sub>	3	CE or NC
4	NC	4	V <sub>DD</sub>	4	NC
5	GND			5	V <sub>OUT</sub>
6	CE or NC				

### TYPICAL CHARACTERISTIC

R1180x281x 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 home appliances



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Ricoh continually strives to promote customer satisfaction, and shares the achievements of its management quality improvement program with people and society.



■ Ricoh awarded ISO 14001 certification.  
The Ricoh Group was awarded ISO 14001 certification, which is an international standard for environmental management systems, at both its domestic and overseas production facilities. Our current aim is to obtain ISO 14001 certification for all of our business offices.

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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.