# RICOH

## **R5323x Series**

## Dual 150mA LDO

The R5323x Series are CMOS-based dual output LDO regulators featuring 150mA output. Standby mode and auto-discharge function are also available (see Selection Guide). Ceramic capacitors can be used.

#### **FEATURES**

- Supply Current (Iss) ...... Typ. 90µA × 2 (VIN=SET VOUT+1.0V)
- Standby Current (Istandby) .....Typ. 0.1µA × 2 (Same as above, CE1/CE2="L")
- Dropout Voltage (VDIF) .....Typ. 0.22V (Iout=150mA, Vout=2.8V)
- Ripple Rejection (RR).....Typ. 70dB (f=1kHz), Typ. 60dB (f=10kHz)
- Input Voltage Range (V<sub>IN</sub>) .....2.0V to 6.0V
- Output Voltage Range (Vout) ..... 1.5V to 4.0V\* (internally fixed)
- Output Voltage Accuracy .....± 2%

#### • Temp. coeff. of Output Voltage ...... Typ. ± 100ppm/°C

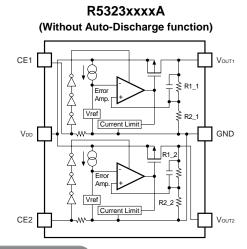
- Line Regulation ...... Typ. 0.02%/V
- Fold-back Protection Circuit ------Current limit Typ. 40mA
- Auto-Discharge function ------B Version
- Packages------WLCSP-6-P1,

DFN(PLP)1820-6

• Ceramic capacitors can be used. ... 1µF or more

\*) For information about combination of output voltage, visit our website to check.

#### **BLOCK DIAGRAMS**



#### **SELECTION GUIDES**

Halogen Free	Package	Q'ty per Reel	Part No.	
H/F	WLCSP-6-P1	3,000 pcs	R5323Zxxx*-TR-F	
H/F	DFN(PLP)1820-6	3,000 pcs	R5323Kxxx*-TR	

#### PACKAGES (Top View)

WLC	SP-6-P1		D	FN(P	PLP)1820-6
6 () () 1	5 4 0 0 0 0 2 3			6	5 4 
1	Vout1			1	Vout2
2	VDD		•	2	VDD
			•		
3	Vout2		-	3	Vout1
4	CE2			4	GND
5	GND			5	CE1
6	CE1			6	CE2
*) The tab is subs	trate level (GN	ID).	-		_

#### **APPLICATIONS**

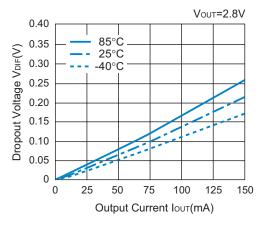
- Power source for hand-held communication equipment, cameras, and VCRs
- Power source for portable audio players

R5323xxxxB (With Auto-Discharge function) CE1 Vout Erro Å Amp. Å Vret R2 Current Limit GND Vpp R1 Amp Vret R2 25 Current Limit CF2 Vout

- xxx : Specify a combination of output voltage for each output using serial numbers.
  - Select from (A) without auto-discharge function or (B) with auto-discharge function.

#### **TYPICAL CHARACTERISTIC**

#### R5323x (VR1/VR2) Dropout Voltage vs. Output Current



- Power source for home appliances
- · Power source for battery-powered equipment

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- feature and fail-safe feature. We do not assume any liability or responsibility for any loss or damage arising from misuse or inappropriate use of the products.
- 7. Anti-radiation design is not implemented in the products described in this document.
- 8. Please contact Ricoh sales representatives should you have any questions or comments concerning the products or the technical information.

## RICOH COMPANY, LTD. Electronic Devices Company



Ricoh presented with the Japan Management Quality Award for 1999. Ricoh continually strives to promote customer satisfaction, and shares the achievements of its management quality improvement program with people and society.

### http://www.ricoh.com/LSI/

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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.



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.