

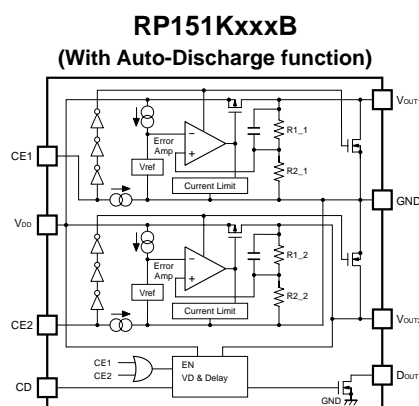
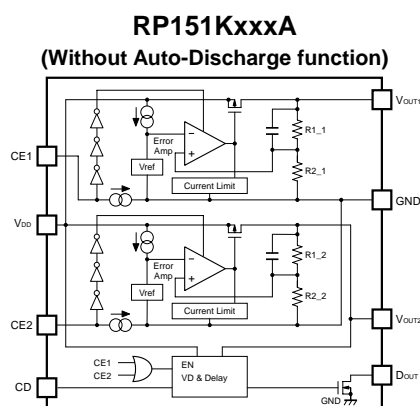
The RP151K Series are CMOS-based dual output LDO regulators with voltage detector featuring 300mA output. In addition to excellent basic performances of RP150K, RP151K contains a voltage detector. The voltage detector monitors the output voltage ( $V_{OUT2}$ )  $\times$  92% of LDO regulator 2. Just as RP150K, RP151K is available in RoHS compliant DFN(PLP)2020-8 package.

## FEATURES

- Supply Current ( $I_{SS}$ ) ..... Typ.  $24\mu A \times 2$  ( $V_{IN} = \text{SET } V_{OUT} + 1.0V$ )
- Standby Current ( $I_{standby}$ ) ..... Typ.  $0.1\mu A \times 2$  (Same as above,  $CE1/CE2 = "L"$ )
- Dropout Voltage ( $V_{DIF}$ ) ..... Typ.  $0.21V$  ( $I_{OUT} = 300mA$ ,  $V_{OUT} = 2.8V$ )
- Ripple Rejection (RR) ..... Typ. 80dB ( $f = 1kHz$ )
- Input Voltage Range ( $V_{IN}$ ) ..... 2.5V to 5.25V
- Output Voltage Range ( $V_{OUT}$ ) ..... 1.5V to 3.3V\* (internally fixed)
- Output Voltage Accuracy .....  $\pm 1\%$
- Temp. coeff. of Output Voltage ..... Typ.  $\pm 30ppm/^{\circ}C$
- Line Regulation ..... Typ.  $0.02\%/V$
- Detector Threshold .....  $V_{OUT2} \times 92\%$
- Output Delay Time ..... Typ. 10ms (external delay capacitor at  $0.01\mu F$ )
- Fold-back Protection Circuit ..... Current limit Typ. 50mA
- Auto-Discharge function ..... B Version
- Package ..... DFN(PLP)2020-8
- Ceramic capacitors can be used. ...  $1\mu F$  or more

\*) For information about combination of output voltage and detector threshold, please check our website.

## BLOCK DIAGRAMS



## SELECTION GUIDE

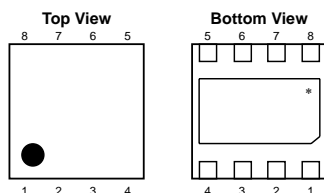
Halogen Free	Package	Q'ty per Reel	Part No.
H/F	DFN(PLP)2020-8	5,000 pcs	RP151Kxxx*-TR

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.

## PACKAGE

### DFN(PLP)2020-8

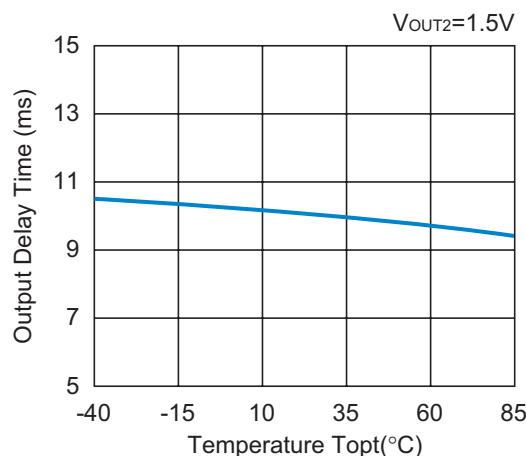


1	CE1	Chip Enable Pin 1
2	GND	Ground Pin
3	CE2	Chip Enable Pin 2
4	CD	Pin for External Capacitor for Setting Output Delay Time of Voltage Detector
5	DOUT	VD Output Pin
6	VOUT2	Output Pin 2
7	VDD	Input Pin
8	VOUT1	Output Pin 1

\*) The tab is substrate level (GND).

## TYPICAL CHARACTERISTIC

### RP151K (VR1/VR2) Output Delay Time vs. Operating Temperature



## APPLICATIONS

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



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Ricoch 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 COMPANY, LTD. Electronic Devices Company

● Shin-Yokohama office (International Sales)  
3-2-3, Shin-Yokohama, Kohoku-ku, Yokohama City, Kanagawa 222-8530, Japan  
Phone: +81-45-477-1697 Fax: +81-45-477-1698

### RICOH EUROPE (NETHERLANDS) B.V.

● Semiconductor Support Centre  
Prof. W.H.Keesomlaan 1, 1183 DL Amstelveen, The Netherlands  
P.O.Box 114, 1180 AC Amstelveen  
Phone: +31-20-5474-309 Fax: +31-20-5474-791

### RICOH ELECTRONIC DEVICES KOREA Co., Ltd.

11 floor, Haesung 1 building, 942, Daechidong, Gangnamgu, Seoul, Korea  
Phone: +82-2-2135-5700 Fax: +82-2-2135-5705

### RICOH ELECTRONIC DEVICES SHANGHAI Co., Ltd.

Room403, No.2 Building, 690#Bi Bo Road, Pu Dong New district, Shanghai 201203,  
People's Republic of China  
Phone: +86-21-5027-3200 Fax: +86-21-5027-3299

### RICOH COMPANY, LTD. Electronic Devices Company

● Taipei office  
Room109, 10F-1, No.51, Hengyang Rd., Taipei City, Taiwan (R.O.C.)  
Phone: +886-2-2313-1621/1622 Fax: +886-2-2313-1623



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.