

Supply Voltage Divided Output, 5.5V Input, 100mA,
0.5 μ A Super Low Current Consumption

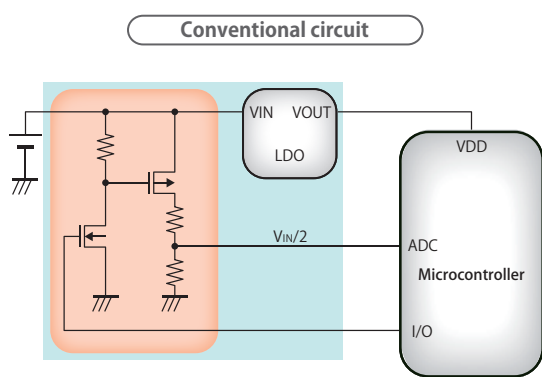
CMOS VOLTAGE REGULATOR

S-1740/1741 Series

- An industry first! Possible to divide and output voltage by a built-in supply voltage divided output
- Carries out voltage monitoring without any external parts when using a low voltage microcontroller
- Achieves world top class super low current consumption operation of 0.5 μ A!!

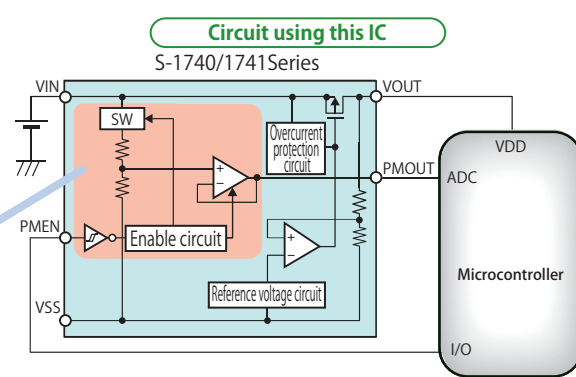
Battery voltage monitoring by supply voltage divided output

Also possible to easily carry out voltage monitoring using a low voltage microcontroller



Single chip utilization

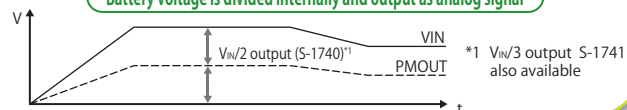
Internal high-accuracy division circuit



Battery voltage division using external parts

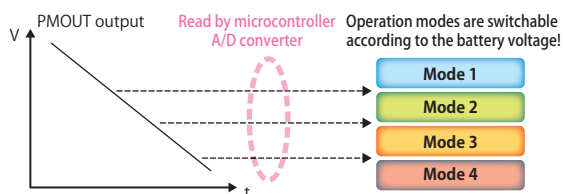
- Cumbersome resistance selection
- Increased number of components due to ON/OFF operation of division circuit

Battery voltage is divided internally and output as analog signal



Using the 1740/1741 Series...

- Possible to monitor battery voltage with a high degree of accuracy
- Ensures long battery life due to super low current consumption
- No need for external parts for voltage division
- Enables fine control through analog output



Applications

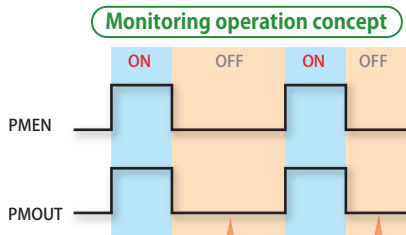


Specifications

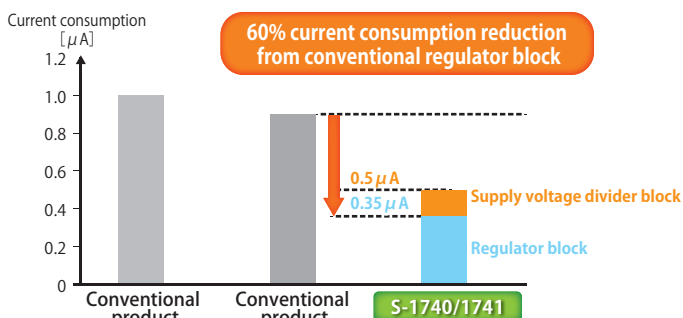
Item	S-1740 Series			S-1741 Series			
	A type	C type	G type	A type	C type	G type	
Regulator block	Product type		1.0 to 3.5V (selectable in 0.05V steps)				
	Output voltage		1.5 to 5.5V				
	Input voltage		$\pm 1.0\%$ (1.0 to 1.45V output product: $\pm 15\text{mV}$) ($T_a = +25^\circ\text{C}$)				
	Output voltage accuracy		20mV typ. ($I_{\text{OUT}} = 10\text{mA}$, $V_{\text{OUT}} = 2.5\text{V}$) ($T_a = +25^\circ\text{C}$)				
Supply voltage divider block	Dropout voltage		100mA				
	Output current		$\pm 30\text{mV}$ ($V_{\text{IN}} = 3.6\text{V}$, $-10\mu\text{A} \leq I_{\text{PMOUT}} \leq 10\mu\text{A}$)				
Overall	Output offset voltage		Active "H"	Active "L"	Without PMEN pin	Active "H"	Active "L"
	Built-in enable circuit		0.5 μA typ. ($T_a = +25^\circ\text{C}$)				
Current consumption during operation		$T_a = -40$ to $+85^\circ\text{C}$					
Operation temperature range		HSNT-6(1212),SOT-23-5					
Package		HSNT-4(1010)		HSNT-6(1212),SOT-23-5		HSNT-4(1010)	

Super low current consumption **Contributes to even longer battery life**

- Achieves even lower current consumption with a PMEN pin
- Outputs signals from a PMOUT pin only during voltage monitoring

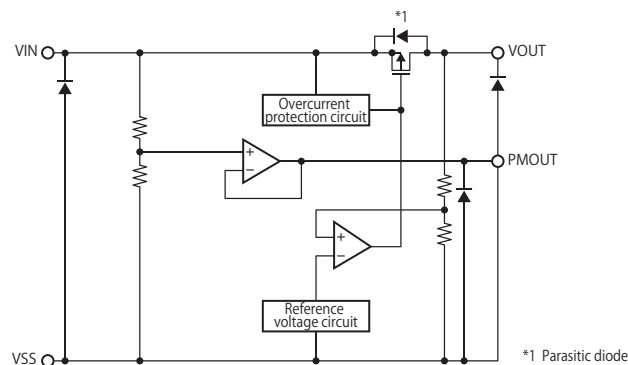
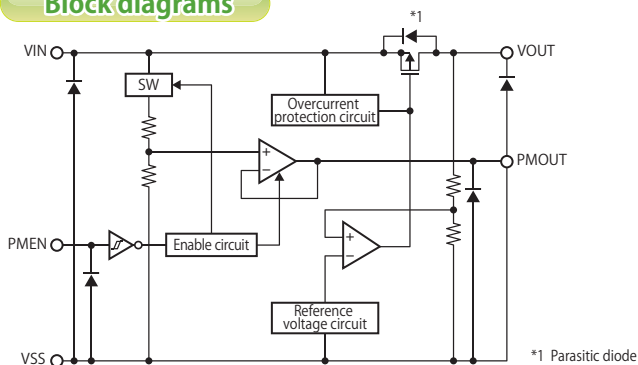


Regulator current consumption is **only 0.35 μ A (typ.)** when supply voltage divided output is OFF (A type, C type only)



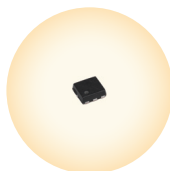
Single function regulator (S-1317 Series) with current consumption of 0.35 μ A (typ.) is also added to the lineup.

Block diagrams

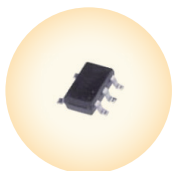


Packages

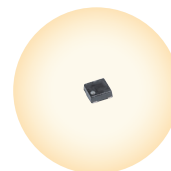
(Unit : mm)



HSNT-6(1212)
1.2 × 1.2 × t0.4 (max.)



SOT-23-5
2.8 × 2.9 × t1.3 (max.)



HSNT-4(1010)
1.0 × 1.0 × t0.4 (max.)



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