

High Accuracy Li-ion/polymer 2Cell protector

The R5463x Series are high voltage CMOS-based protection ICs for over-charge/discharge of rechargeable two-cell Li-ion/Lithium polymer, further include a short circuit protection circuit for preventing large external short circuit current and the protection circuits against the excess discharge-current and excess charge current.

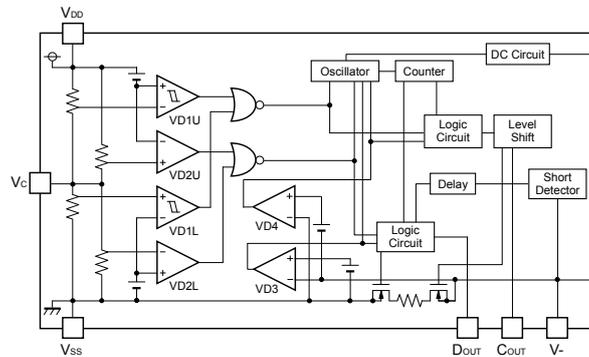
Each of these ICs is composed of six voltage detectors, reference units, a delay circuit, a short circuit protector, an oscillator, a counter, and logic circuits. DFN(PLP)1820-6B package is available.

FEATURES

- Supply Voltage (V_{DD}) 12V (Absolute Maximum Rating)
- Charger Negative Input Voltage (V_-) -30V (Absolute Maximum Rating)
- Operating Input Voltage Range (V_{DD}) 1.5V to 10.0V
- Supply Current (I_{DD}) Typ. 4.0 μ A
- Standby Current (I_s) Max. 0.1 μ A
- Over-charge (V_{DET1}) Detector Threshold Range 3.65V to 4.32V (0.005V Steps)
Voltage Accuracy ± 20 mV
Output Delay Time ($t_{V_{DET1}}$) 1.0s
- Over-discharge (V_{DET2}) Detector Threshold Range 2.0 to 3.2V (0.1V Steps)
Voltage Accuracy $\pm 1.0\%$
Output Delay Time ($t_{V_{DET2}}$) 128ms
- Excess discharge-current (V_{DET3}) Detector Threshold Range 0.05V to 0.2V (0.005V steps)
Voltage Accuracy ± 10 mV
Output Delay Time ($t_{V_{DET3}}$) 12ms
- Excess charge-current (V_{DET4}) Detector Threshold -0.2V to -0.1V
Voltage Accuracy ± 20 mV
Output Delay Time ($t_{V_{DET4}}$) 8ms
- Short Protection Detector Threshold (V_{short}) Typ. 1.0V
Output Delay Time (t_{short}) Typ. 300 μ s
- 0V-battery charge Unavailable
- Packages DFN(PLP)1820-6B

BLOCK DIAGRAMS

R5463K2xxAG



SELECTION GUIDE

Halogen Free	Package	Quantity per Reel	Part No.
H/F	DFN(PLP)1820-6B	5,000 pcs	R5463K2xx\$* -TR

xx: Serial Number for the R5463x Series designating input four threshold for over-charge, over-discharge, excess discharge-current and excess charge-current detectors.

\$: Designation of Output delay option of excess charge-current, excess discharge-current and short circuit.

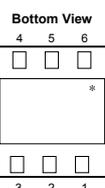
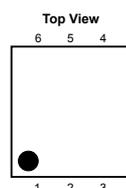
(A) $t_{V_{DET1}}=1s$, $t_{V_{DET2}}=128ms$, $t_{V_{DET3}}=12ms$, $t_{V_{DET4}}=8ms$

*: Designation of protection type.

(G) Auto Release after Over-charge and with Latch function after Over-discharge.

PACKAGE

DFN(PLP)1820-6B



1	COUT
2	V-
3	DOUT
4	VSS
5	VDD
6	VC

*) The tab is substrate level (V_{DD})

APPLICATIONS

- Li-ion/Li polymer protector of over-charge, over-discharge, excess discharge-current, excess charge-current for battery pack
- High precision protectors for DSLR, portable DVD player and any other gadgets using on board Li-ion/Li polymer battery