



Product Overview

LC05111CMT: Battery Protection Controller with Integrated MOSFET, 1-Cell Lithium-Ion

For complete documentation, see the data sheet

Product Description

The LC05111CMT is a battery protection circuit for 1-cell lithium-ion secondary batteries with integrated power MOSFET. Also, it integrates highly accurate detection circuits and detection delay circuits to prevent batteries from over-charging, over-discharging, over-current discharging and over-current charging. A battery protection system can be made by only LC05111CMT and few external parts.

Features

- Integrated power MOSFET
- Low R_{son} 11m
- PKG fuse trimming
- Reducing the dispersion of over-current detection

Benefits

- Easy design
- Low power dissipation
- Short TAT for preparing samples
- Highly accurate detection

Applications

- Lithium ion battery protection

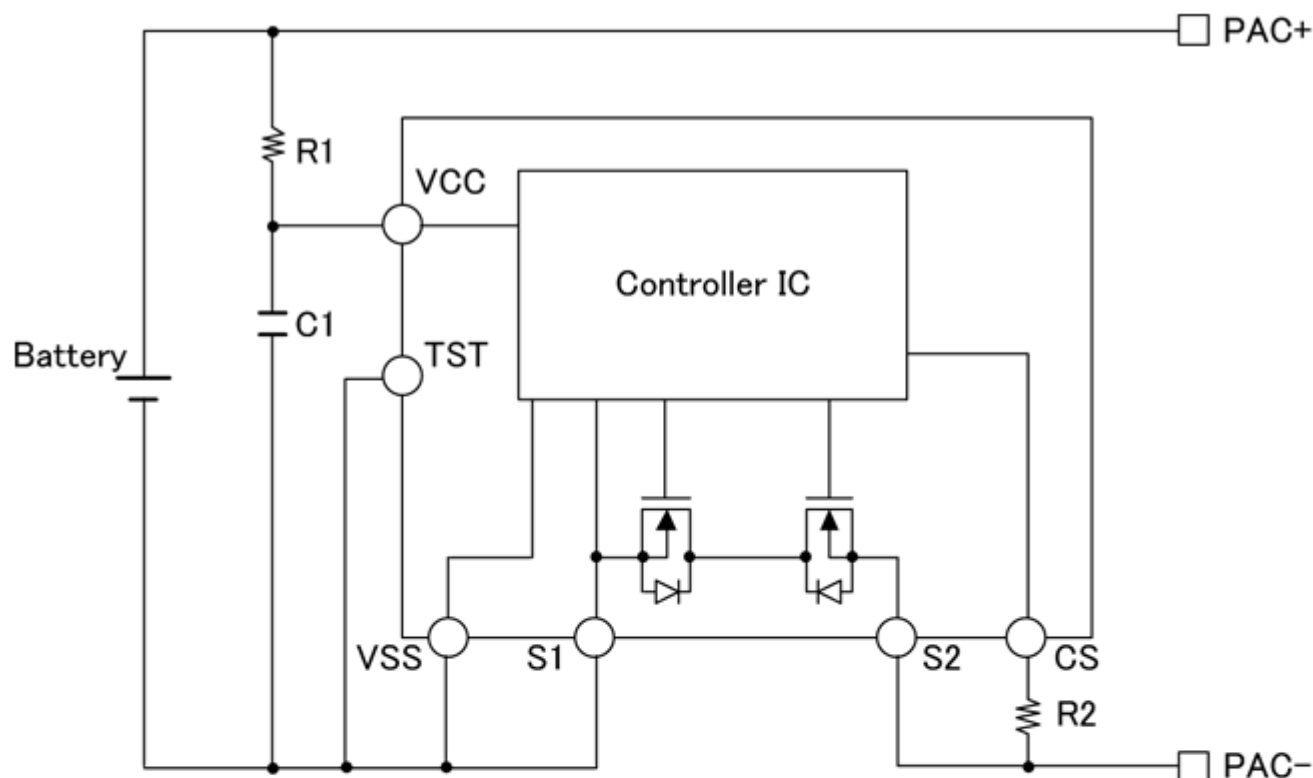
End Products

- Smart phone
- Tablet

Part Electrical Specifications

Product	Compliance	Status	V _{CC} Min (V)	V _{CC} Max (V)	P _(AV) Max (W)	V _{IT+} Typ (V)	V _{IT} Typ (V)	I _{DDH} Max (uA)	T _A Min (°C)	T _A Max (°C)	Package Type
LC05111C01MTTGG	Pb-free Halide free	Active	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C02MTTGG	Pb-free Halide free	Active	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C03MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C04MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C05MTTGG	Pb-free Halide free	Active	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C06MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C07MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C08MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C09MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C10MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C11MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag
LC05111C12MTTGG	Pb-free Halide free	ProductPreview	2	5	0.35			6	-40	85	WDFN-6 Dual Flag

Application Diagram



Components	Recommended value	MAX	unit
R1	680	1k	Ω
R2	1k	2k	Ω
C1	0.1 μ	1.0 μ	F

- * We don't guarantee the characteristics of the circuit shown above.
- * TST pin would be better to be connected to VSS pin, though it is connected to VSS with internal resistor (100k Ω typ).
- * Battery voltage drop occurs, a current of about 60 μ A flow period of 1.5V-1.3V.

For more information please contact your local sales support at www.onsemi.com

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