Product Overview

FAN54120: Single-Cell Linear Battery Charger, 500mA, with power back capability for Small Battery and IoT Applications

For complete documentation, see the data sheet.

The FAN54120 is a USB-compatible single-cell, linear Li-Ion battery charger with "Power Back" Capability, It supports dead battery revival, pre-charge, fast charge, and float charge states.
Fast charging current (IFAST) is set with an external resistor. Pre-charge (IPRE) and charge complete (ICHGEND) currents are factory set at IFAST/5.2 and IFAST/10, respectively.
An open-drain ("STAT") pin provides charge and/or fault status indication. The "Power Back" enables to power accessories from the battery

Features

- Fully integrated charger for Single Cell Li-Ion or Li-Polymer battery
- Factory Configured Charge Voltage
- Charge Voltage Accuracy: (+/-0.5%) and charge current accuracy (+/-4%)
- User determined Fast charge Current via external resistor
- Small foot print
- Ultra low Battery Discharge Current (<120nA)
- 28 V Absolute Maximum Input Voltage
- True Reverse Current Blocking
- Adaptive Thermal Regulation
- Supports JEITA Safe-to-Charge operation with an external NTC

  For more features, see the data sheet

Benefits

- Easier system design and no host micro needed - no software development
- Three float voltages (4.2V, 4.25V and 4.35V) are available via factory OTP.
- Good charge accuracy can help over charge protection
- Customized charge current
- Enable the system miniaturization and cost reduction
- low power consumption

Applications

- Io T Devices
- E-Cigs / Vapes
- Personal Mobile Devices (games, camera, etc.)
- Point-of-Sale instruments
- Toys

End Products

- TWS earbuds

Part Electrical Specifications

Product	Pricing ($/Unit)	Compliance	Status	Type	Number of Cells Charged	V_{CC} Min (V)	V_{CC} Max (V)	I_D Max (µA)	Package Type
FAN54120MP420X	0.3333	Pb-free Halide free non AEC-Q and PPAP	Active	Li-Ion/Polymer	1	4	6	0.3	DFN-6
FAN54120MP425X		Pb-free Halide free non AEC-Q and PPAP	ProductPreview	Li-Ion/Polymer	1	4	6	0.3	DFN-6
FAN54120MP435X		Pb-free Halide free non AEC-Q and PPAP	ProductPreview	Li-Ion/Polymer	1	4	6	0.3	DFN-6
FAN54120UC420X	0.3333	Pb-free Halide free non AEC-Q and PPAP	NEW	Li-Ion/Polymer	1	4	6	0.3	WLCSP6 1.36x0.76x0.581
FAN54120UC425X	0.3333	Pb-free Halide free non AEC-Q and PPAP	NEW	Li-Ion/Polymer	1	4	6	0.3	WLCSP6 1.36x0.76x0.581
FAN54120UC435X	0.3333	Pb-free Halide free non AEC-Q and PPAP	NEW	Li-Ion/Polymer	1	4	6	0.3	WLCSP6 1.36x0.76x0.581

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

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