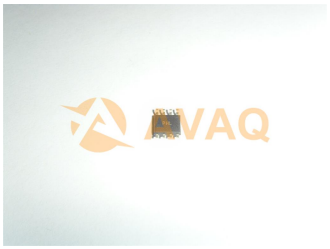
BQ2000SN-B5

Switching Battery Charger Li-Ion/Li-Pol/NiCd/NiMH 2000mA 0V to 6V 8-Pin SOIC Tube

Manufacturer:	Texas Instruments, Inc
Package/Case:	SOP8
Product Type:	Power Management ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The bq2000 is a programmable, monolithic IC for fast-charge management of nickel cadmium (NiCd), nickel metal-hydride (NiMH), or lithium-ion (Li-Ion) batteries in single- or multi-chemistry applications. The bq2000 chooses the proper battery chemistry (either nickel or lithium) and proceeds with the optimal charging and termination algorithms. This process eliminates undesirable, undercharged, or overcharged conditions, and allows accurate and safe termination of fast charge

Depending on the chemistry, the bq2000 provides a number of charge termination criteria:
Peak voltage, PVD (for NiCd and NiMH)
Minimum charge current (for Li-Ion)
Maximum temperature
Maximum charge time

For safety, the bq2000 inhibits fast charge until the battery voltage and temperature are within user-defined limits. If the battery voltage is below the low-voltage threshold, the bq2000 uses trickle-charge to condition the battery. For NiMH batteries, the bq2000 provides an optional top-off charge to maximize the battery capacity.

The integrated high-speed comparator allows the bq2000 to be the basis for a complete, high-efficiency battery charger circuit for both nickel-based and lithium-based chemistries.

Key Features

Safe Management of Fast Charge for NiCd, NiMH, or Li-Ion Battery Packs

High-Frequency Switching Controller for Efficient and Simple Charger Design

Pre-Charge Qualification for Detecting Shorted, Damaged, or Overheated Cells

Fast-Charge Termination by Peak Voltage (PVD) for Nickel chemistries, Minimum Current for Li-Ion chemistries, Maximum Temperature, and Maximum Charge Time

Selectable Top-Off Mode for Achieving Maximum Capacity in NiMH Batteries

Programmable Trickle-Charge Mode for Reviving Deeply Discharged Batteries and for Postcharge Maintenance

Built-in Battery Removal and Insertion Detection

Sleep Mode for Low Power Consumption

APPLICATIONS
Multi-Chemistry Charger

Nickel Charger

High-Power, Multi-Cell Charger

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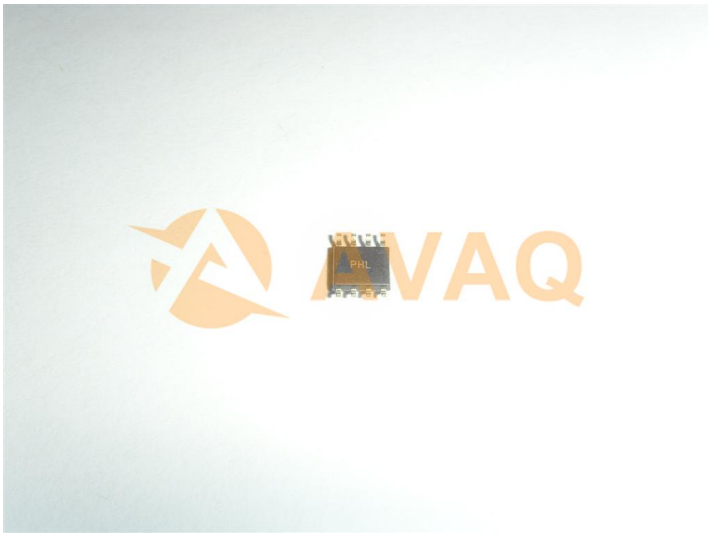

Recommended For You

BQ51013BRHLR

Texas Instruments, Inc

VQFN20

BQ51050BRHLT

Texas Instruments, Inc

QFN

BQ51050BRHLR

Texas Instruments, Inc

VQFN-20

BQ24045DSQR

Texas Instruments, Inc

WSON10

BQ24725ARGRT

Texas Instruments, Inc

QFN

BQ7693000DBT

Texas Instruments, Inc

TSSOP30

BQ25896RTWT

Texas Instruments, Inc

QFN24

TL432BQDBZR

Texas Instruments, Inc

SOT23-3

BQ2050HSN-A508

Texas Instruments, Inc

SOP16

BQ24192RGER

Texas Instruments, Inc

VQFN24

BQ24105RHLR

Texas Instruments, Inc

VQFN20

BQ24190RGER

Texas Instruments, Inc

VQFN24

BQ24010DRCR

Texas Instruments, Inc

QFN

TPS54360BQDDAQ1

Texas Instruments, Inc

SOP-8

TLV431BQDBZRQ1

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SOT23