BRCL4054DME /
SOT23-5 BRCL4054DME
BRCL4054DME USB
PMOSFET

4.20V 4.20V 1/10
BRCL4054DME
USB BRCL4054DME
3uA BRCL4054DME

BRCL4054DME is a complete CC/CV linear charger for single cell lithium-ion batteries,It has the function of positive and negative electrode protection for battery.Its SOT23-5 package and low external component count make the BRCL4054DME ideally suited for portable applications. Furthermore, the BRCL4054DME is specifically designed to work within USB power specifications.

No external sense resistor is needed and no blocking diode is required due to the internal P-MOSFET architecture. Thermal feedback regulates the charge current to limit the die temperature during high power operation or high ambient temperature .The charge voltage is fixed at 4.2V,and the charge current can be programmed externally with a single resistor. The BRCL4054DME automatically terminates the charge cycle when the charge current drops to 1/10th the programmed value after the final float voltage is reached.

When the input supply (wall adapter or USB supply) is removed the BRCL4054DME automatically enters a low current

130 0

Intelligent temperature control technology,charging current will decrease with increasing temperature,130 began to decline,the lowest can be reduced to 0

Soft-Start limits inrush current

Automatic recharge

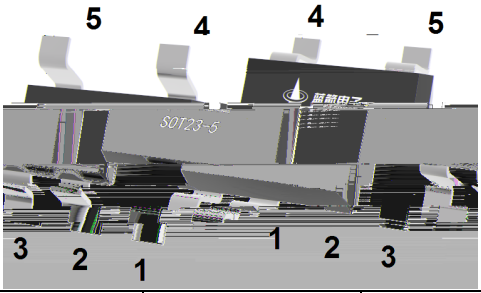
4KV ESD HBM mode

Halogen-free Product.

USB

Suitable for USB power and adapter power,Bluetooth applications and other portable devices.

[redacted]



1	CHRG	/Charging indicator
[redacted]		
3	BAT	/Battery Input

See Marking Instructions.

Parameter	Symbol	Rating	Unit
VDD to GND	V_{DD}	-0.3~8	V
BAT to GND	V_{BAT}	-0.3~7	V
CHRG to GND	V_{chrg}	-0.3~8	V
PROG to GND	V_{prog}	-0.3~8	V
Storage Temperature	T_{STG}	-50~+125	
Operating Temperature Range	T_{opr}	-40~+85	
Lead Temperature Soldering 10s	T_{solder}	260	

800mA BRCL4054DME
CHRG

130

BRCL4054DME

BRCL4054DME CHRG
2.8V 2.8V
PROG GND RPROG
4.2V BRCL4054DME
CHRG 10 A

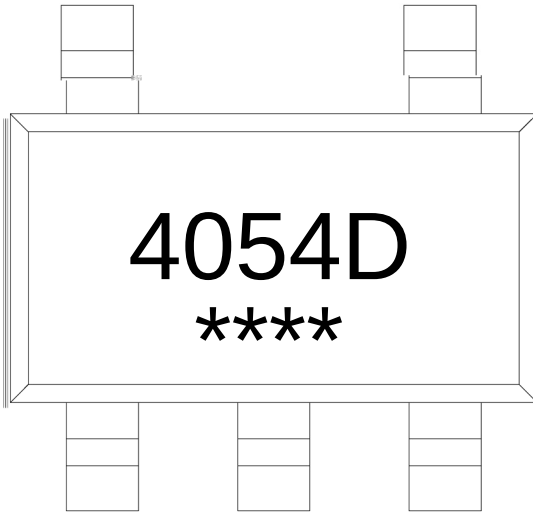
To restart the charge cycle, remove the input voltage and reapply it. The charge cycle can also be automatically restarted if the BAT pin voltage falls below the recharge threshold. The on-chip reference voltage, error amplifier and the resistor divider provide regulation voltage with 1% accuracy which can meet the requirement of lithium-ion and lithium polymer batteries. When the input voltage is not present, or input voltage is below VBAT, the charger goes into a sleep mode, dropping battery drain current to less than 3μA. This greatly reduces the current drain on the battery and increases the standby time.

PROG

The charge current is programmed using a single resistor from the PROG pin to ground. The program resistor and the charge current are calculated using the following equations.

$$R_{prog}(kohm)=\frac{1000}{}\ (\text{误差}\pm10\%)$$

/ Marking Instructions



4054D

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Note:

4054D:	Product Type Code
****:	Lot No. Code, code change with Lot No.