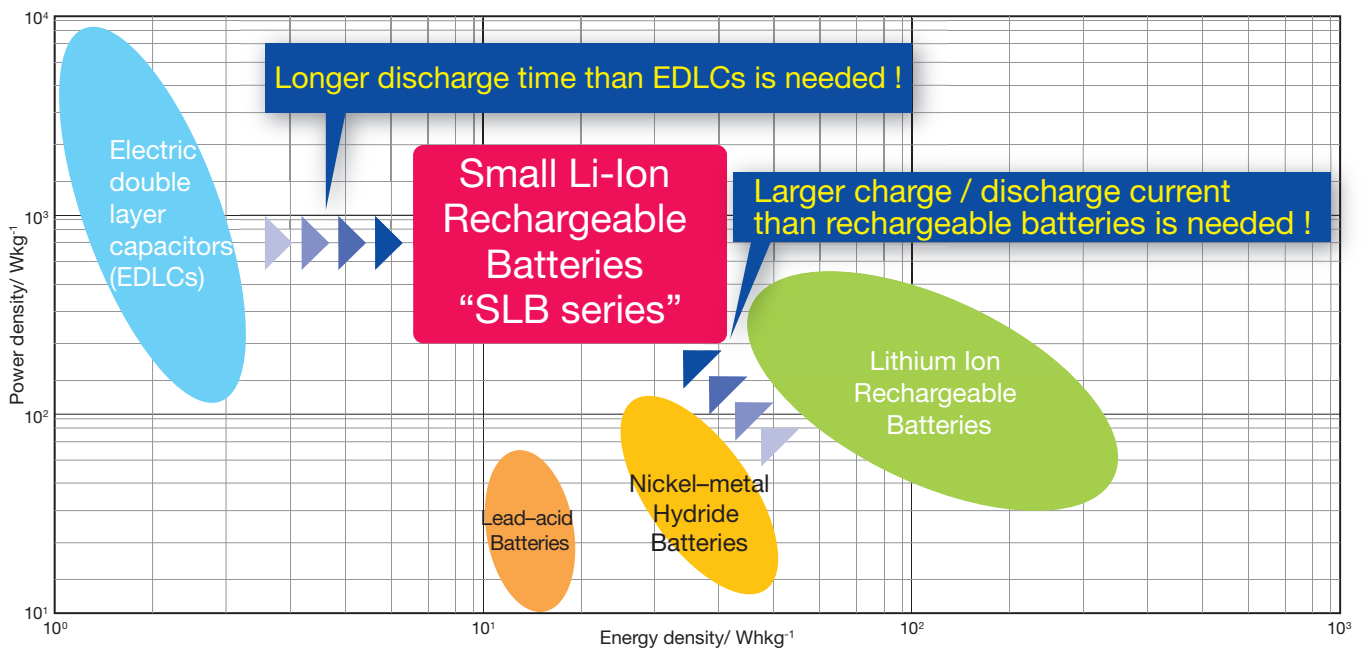


# Small Li-Ion Rechargeable Batteries “SLB” Suitable for IoT and Wearable Applications

**Small Li-Ion Rechargeable Batteries achieve both high power density and high energy density**

## Development Background



## Product Features

- Long life: Maintains a capacity of 80% or more after 25,000 charging/discharging cycles  
[Conditions] Temperature:25°C / Voltage range:1.8 to 2.8V  
Charging/discharging rate:10 C / Rest:0sec
- Rapid charging/discharging is possible: Support for 20 C rate rapid charging/discharging
- Low charging current: Capable of charging at 0.01C charging rate
- Low temperature performance: Possible to charge and discharge even in cold regions (-30°C)
- Safety: Extremely low explosion and ignition possibility even if an internal short circuit is forcibly generated



Small Li-Ion Rechargeable Batteries SLB series

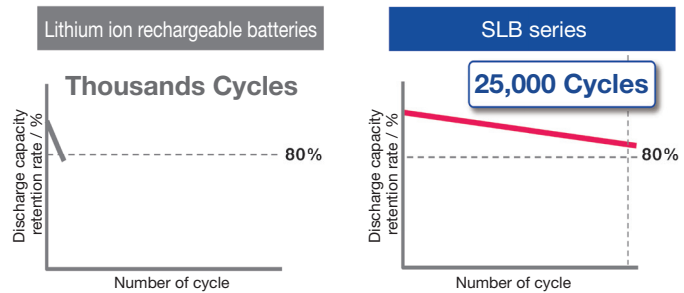
## Specifications

Item	Characteristics	Part number	SLB03070LR35	TENTATIVE SLB03090LR80	TENTATIVE SLB04255L040	SLB08115L140	SLB12400L151
Nominal voltage	2.4V	Size (mm)	φ 3×7L	φ 3.3×9L	φ 4×25.5L	φ 8×11.5L	φ 12.5×40L
Max. charge voltage (Under continuous charge)	2.8V	Nominal capacity (mAh)	0.35	0.8	4	14	150
Discharge cutoff voltage (Under continuous discharge)	1.8V	Max. charge / discharge current (mA)	7	16	80	280	3000
Temperature range	-30 to 60°C	Weight (g)	0.12	0.16	0.75	1.2	9.0

# Features of Small Li-Ion Rechargeable Batteries "SLB"

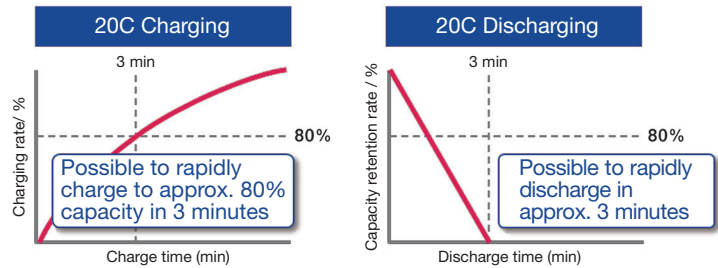
## 1 Long life

Maintain a capacity of at least 80% after 25,000 charging/discharging cycles



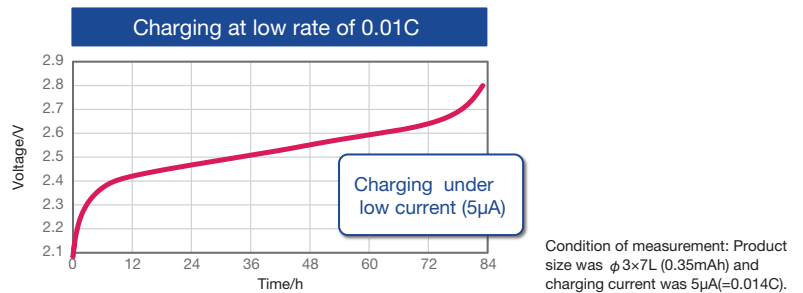
## 2 Rapid charge/discharge

High input/output density approaching electric double layer capacitors (EDLCs)



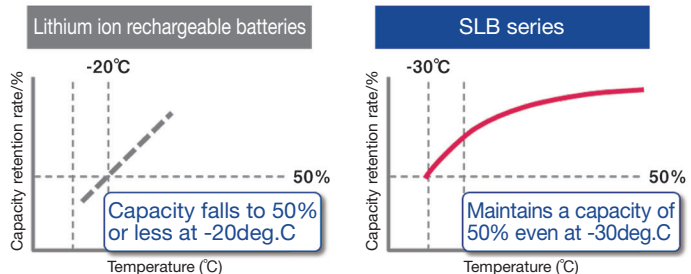
## 3 Low charging current

Capable of charging at low rate using energy harvesting



## 4 Low temperatures

Possible to use in cold regions (-30deg.C)



## 5 Safety

Extremely low possibility of explosion or ignition even when used under harsh conditions

Extremely low risk of rupture or ignition and high safety.



**Safe**

### Safety Test

Crushing by pressure After test



Nail penetration After test



- We have confirmed these batteries are safe with no explosions or ignition in crush, nail insertion, blunt nail, external short circuit, overcharge and forced discharge tests.

UL1642

Certification for Lithium-ion Battery



- UL1642 and IEC62133-2 : 2017 certified product.

## NICHICON CORPORATION

URL <https://www.nichicon.co.jp/english>

<ul style="list-style-type: none"> <li>■ HEAD OFFICE</li> <li>■ NICHICON (AMERICA) CORP.</li> <li>■ NICHICON (AUSTRIA) GmbH</li> <li>■ NICHICON (HONG KONG) LTD.</li> <li>■ NICHICON (SINGAPORE) PTE. LTD.</li> <li>■ NICHICON (THAILAND) CO., LTD.</li> <li>■ NICHICON ELECTRONICS (INDIA) PVT. LTD.</li> <li>■ NICHICON CORPORATION KOREA REPRESENTATIVE OFFICE</li> </ul>	<ul style="list-style-type: none"> <li>TEL.81-75-231-8461</li> <li>TEL.1-847-843-7500</li> <li>TEL.43-1-706-7932</li> <li>TEL.852-2363-4331</li> <li>TEL.65-6481-5641</li> <li>TEL.66-2-670-0150</li> <li>TEL.91-80-4094-8661</li> <li>TEL.82-31-8065-6366</li> </ul>	<ul style="list-style-type: none"> <li>FAX.81-75-256-4158</li> <li>FAX.1-847-843-2798</li> <li>FAX.43-1-706-7933</li> <li>FAX.852-2764-1867</li> <li>FAX.65-6481-6485</li> <li>FAX.66-2-670-0153</li> <li>FAX.91-80-4094-8651</li> <li>FAX.82-31-8065-6367</li> </ul>
--	---	---

※ The data provided is for introduction purposes and is not guaranteed value.



### SAFETY PRECAUTIONS

- Please use this product in accordance with NICHICON's product specifications. If the customer uses this product in a manner other than indicated in the delivery specifications, NICHICON will not assume responsibility in the event of failure.

**NOTES**

- SPECIFICATION AND DIMENSIONS IN THIS CATALOG ARE SUBJECT TO CHANGE WITHOUT NOTICE. IF NECESSARY, DRAWINGS CAN BE PROVIDED.
- OTHER THAN THE EXPRESS WRITTEN DELIVERY SPECIFICATIONS CONTAINED IN NICHICON'S CATALOG OR OTHER NICHICON LITERATURE, NICHICON MAKES NO WARRANTY, EXPRESS, IMPLIED, OR OTHERWISE, IN CONNECTION WITH THESE PRODUCTS, AND ALL IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PRODUCT, ARE DISCLAIMED. NICHICON SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. CUSTOMER'S SOLE REMEDY IN THE EVENT THAT NICHICON'S DELIVERY SPECIFICATIONS ARE NOT MET IS TO REPAIR, REPLACE, OR REFUND THE PURCHASE PRICE OF THE SUBJECT PRODUCT, AT NICHICON'S OPTION.
- CATALOG PRINTED IN OCTOBER 2021