

Delivering leading edge, innovative power solutions for more than 30 years....

Model:BL5000C217001S1PXXX\_SH366002

May 21, 2024

## BL5000C217001S1PXXX\_SH366002

### Information

Model Number	BL5000C217001S1PXXX_SH366002
Description	BL5000C217001S1PXXX_SH366002, , Battery Cylindrical Can, Battery Li-Ion, , Input Rating: , , Output Rating: Watts, Power rating with convection cooling (W) , V in 0.1V increments, Approvals:

### Model Picture



**For Representation Only**

Agency Documents	<a href="http://www.globtek.info/certs/BL3500C1865001S1PCMK/">http://www.globtek.info/certs/BL3500C1865001S1PCMK/</a>
CE EC-Declaration	<a href="https://www.globtek.com/pdf/ec_declaration/a0O3a00000NqBuDEAV">https://www.globtek.com/pdf/ec_declaration/a0O3a00000NqBuDEAV</a>
RoHS/RoHS2 Declaration	<a href="https://www.globtek.com/pdf/rohs_cert/a0O3a00000NqBuDEAV">https://www.globtek.com/pdf/rohs_cert/a0O3a00000NqBuDEAV</a>
REACH Declaration	<a href="https://www.globtek.com/pdf/iso_certificates/REACH.pdf">https://www.globtek.com/pdf/iso_certificates/REACH.pdf</a>
Conflict Minerals Declaration	<a href="https://www.globtek.com/pdf/conflict-minerals.pdf">https://www.globtek.com/pdf/conflict-minerals.pdf</a>

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**MODEL PARAMETERS**

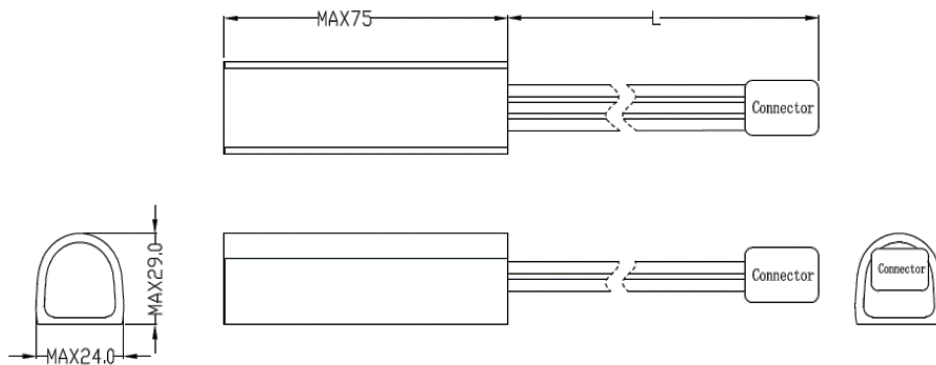
Type	Battery Cylindrical Can
Technology	Battery Li-Ion
Category	
Input Voltage	
I/P Amps (A)	
Wattage (W)	
Vout Range (V)	
Efficiency Level	
Ingress Protection	IPx0
Size (mm)	

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## ENCLOSURE



1S1P (BC1)

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## RATING TABLE

Model Number	Voltage	Amps(A)	Watts(W)	RFQ
BL5000C217001S1PXXX	3.6 V	5	18.00	<a href="#">RFQ</a>

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## SPECIFICATIONS

### General Pack Specifications

Description:	Lithium-ion battery pack with SMBus-compatible battery management system (BMS)
Includes Built-In Charger?	No
Includes Safety Protections?	Yes
Includes Fuel Gauge?	Yes, via SMBus
BMS Details:	ICs: SH366002 + HY2113 + HY2115 PCB: 500-12011920(R)
Cell configurations for which this electrical specification applies:	1s1p, 1s2p, 1s3p, 1s4p
Nomenclature:	The abbreviation (# 'p') is the "# of parallel strings" (i.e. the "Y" in XsYp) The abbreviation (# 's') is the "# of series cells in each string" (i.e. the "X" in XsYp)

### Cell Specifications

Cell P/N:	LR2170
Nominal Cell Capacity:	5000mAh [Per cell manufacturer spec, 4.2V - 2.5V discharge, 0.2C, +25°C]
Initial Internal Impedance per Cell:	30mΩ (max.)
Cell Approvals:	UL1642

### Charge Specifications

Compatible Charging Method:	Constant current (CC) + constant-voltage (CV)
SMBus Smart Charger Compatible (SBS)?	Yes, pack suggests charging parameters based on measured pack temperature and SoC (SBS compatible chargers only)

CC Current:		1s1p	1s2p	1s3p	1s4p
	0°C to 10°C	0.375A	0.75A	1.125A	1.50A
	10°C to 45°C	1.00A	2.00A	3.00A	4.00A

[Maximum recommend values &amp; SMBus ChargingCurrent() defaults]

CV Voltage:		1s1p, 1s2p, 1s3p, 1s4p
	0°C to 5°C	4.000V
	5°C to 35°C	4.125V
	35°C to 45°C	4.000V

[Maximum recommended value &amp; SMBus ChargingVoltage() default]

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When charging, if any cell's voltage is <3.00V, the charger should supply 0.075C [0.375A • (# 'p')] or less, until all cells are ≥3.00V

Pre-Charge Current:

1s1p	1s2p	1s3p	1s4p
0.375A	0.75A	1.125A	1.50A

[Maximum recommend values]

Charge-Termination Current:

0.05C [0.250A • (# 'p')]

## Discharge Specifications

Maximum Continuous Discharge Current:	5.0A
Recommended Discharge Cutoff Voltage:	3.0V
Usable Discharge Capacity (typ.):	$4500mAh \cdot (\# 'p')$ [4.125 - 2.8V discharge @ 0.2C] $4200mAh \cdot (\# 'p')$ [4.125 - 3.0V discharge @ 0.2C]
Cycle Life (typ.):	750 cycles [ $\geq 70\%$ of 1st cycle capacity, [4.125 - 2.8V, 0.2C charge / 0.2C discharge, $25^{\circ}C$ ]

## Environmental

Ambient Temperature Range (in Charge):	$0^{\circ}C$ to $45^{\circ}C$
Ambient Temperature Range (in Discharge):	$-20^{\circ}C$ to $45^{\circ}C$
Humidity:	0 - 85% RH
Atmospheric Pressure:	86 - 106kPa
Storage:	Maintain SoC between 30 - 50% $-20^{\circ}C$ to $50^{\circ}C$ 0 - 70% RH Suggested maintenance charge intervals: Every 3 months at $-20^{\circ}C$ to $25^{\circ}C$ Every 1 month at $-20^{\circ}C$ to $50^{\circ}C$
Handling:	Please follow GlobTek, Inc. HANDLING AND SAFETY PRECAUTIONS FOR Li-Ion & Li-Polymer.

## Recoverable Protection Parameters

Over-Voltage in Charge:	Trip: $4.25V \pm 0.05V$ Release: $4.05V \pm 0.05V$ Trip delay: 1s (typ.)
Under-Voltage in Discharge:	Trip: $2.80V \pm 0.05V$ Release: $2.80V \pm 0.05V$ Trip delay: 120ms (typ.)

Delay	Trip threshold		

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Over-Current in Charge:		1s1p	1s2p	1s3p	1s4p											
	8ms(typ.)	3.5A (min.) 5.0A (max.)	3.5A (min.) 5.0A (max.)	3.5A (min.) 5.0A (max.)	4.2A (min.) 6.0A (max.)											
Over-Current in Pre-Charge (typ.)	N/A															
Over-Current in Discharge:	<table><tr><td>Delay</td><td colspan="4">Trip threshold</td></tr><tr><td></td><td>1s1p</td><td>1s2p</td><td>1s3p</td><td>1s4p</td></tr><tr><td>8ms(typ.)</td><td>5.2A (min.) 7.0A (max.)</td><td>5.2A (min.) 7.0A (max.)</td><td>5.2A (min.) 7.0A (max.)</td><td>6.0A (min.) 8.0A (max.)</td></tr></table>	Delay	Trip threshold					1s1p	1s2p	1s3p	1s4p	8ms(typ.)	5.2A (min.) 7.0A (max.)	5.2A (min.) 7.0A (max.)	5.2A (min.) 7.0A (max.)	6.0A (min.) 8.0A (max.)
Delay	Trip threshold															
	1s1p	1s2p	1s3p	1s4p												
8ms(typ.)	5.2A (min.) 7.0A (max.)	5.2A (min.) 7.0A (max.)	5.2A (min.) 7.0A (max.)	6.0A (min.) 8.0A (max.)												
Over-Temperature in Charge (typ.):	Trip: 45°C Release: 40°C [Cell surface temperature] Note: SBS flag only															
Under-Temperature in Charge (typ.):	N/A															
Over-Temperature in Discharge (typ.):	Trip: 60°C Release: 45°C [Cell surface temperature] Note: SBS flag only															
Under-Temperature in Discharge (typ.):	N/A															
Non-Recoverable (Permanent Fail) Protection Parameters																
Protections:	None															
Approvals & Regulatory																
RoHS:	Complies with 2011/65/EU + (EU)2015/863 and China SJ/T 11364-2014															
CE:	Complies with 2013/56/EU, including, but not limited to, EN61000-6-1:2007, EN61000-6-3:2007															
Transportation:	Designed to meet UN38.3															
Safety:	Designed to meet UL2054, IEC62133-2 (ed1.1)															

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## DERATING CURVE

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**INPUT CONFIGURATION**

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## Approvals

Logo	
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