



## BBCV2.MH21015 Lithium Batteries - Component

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### Lithium Batteries - Component

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**SAMSUNG SDI CO LTD**

MH21015

MOBILE ENERGY BUSINESS TEAM

508 SUNGSUNG-DONG

CHONAM-SHI

CHONGCHONGNAM-DO, 330-300 REPUBLIC OF KOREA

Model	Secondary Type <sup>(b)</sup>	Max Charging Current (I <sub>c</sub> ), mA	Max Charging Voltage, V dc (e)	Test Compliance (f)
IFR18650-11++	Lithium Ion	10000(h)	12	1
INR18650-13++	Lithium Ion	8000(h)	4.25	1
INR18650-15++	Lithium Ion	6670 (h) 10000(h)	20 15	1 1
INR18650-20++	Lithium Ion	6700(h)	20	1
ICR18650-18++	Lithium Ion	1800	12	1
ICR18650-20++	Lithium Ion	2000(g) or (h)	12	1
ICR18650-22++	Lithium Ion	2200(g)	12	1
	Lithium Ion	2150(h)	12	1
ICR18650-24++	Lithium Ion	2400(f)	5(f)	1
ICR18650-26++	Lithium Ion	2600 (g)	12	1
ICR18650-28++	Lithium Ion	2800 (g)	12	1
ICR18650-30++	Lithium Ion	3000(g)	12	1
PGF182859A++	Lithium Ion	235	5	1
PGF182859H++	Lithium Ion	245(h)	4.4	1
PGF213455A++	Lithium Ion	340(g) or (h)	5	1
PGF234241A++	Lithium Ion	375(g)	5	1
PGF241533A++	Lithium Ion	109(h)	4.2	1
PGF255462A++	Lithium Ion	875(g)	5	1
PGF255465A++	Lithium Ion	900(g)	5	1
PGF274762A++	Lithium Ion	729	5	1
PGF274762H++	Lithium Ion	765(h)	4.4	1
PGF284762A++	Lithium Ion	790(h)	4.4	1
PGF2865B3A++	Lithium Ion	2310(h)	4.4	1
PGF294361A++	Lithium Ion	939(h)	4.4	1
PGF294361A++	Lithium Ion	939(h)	4.4	1
PGF295385A++	Lithium Ion	1150	12	1
PGF315662A++	Lithium Ion	1300(h)	4.5	1
PGF326982A++	Lithium Ion	2260(h)	4.4	1
PGF346392A++	Lithium Ion	1750(h)	4.4	1

PGF345385A++	Lithium Ion	1450	12	1
PGF345393A++	Lithium Ion	1765(h)	4.2	1
PGF354167A++	Lithium Ion	1150(g)	5.0	1
PGF354357A++	Lithium Ion	910(h)	4.5	1
PGF354756A++	Lithium Ion	1040(g)	12.0	1
PGF354756B++	Lithium Ion	940(h)	4.4	1
PGF3558C0A++	Lithium Ion	2740(j)	12	1
	Lithium Ion	2740(h)	4.4	1
PGF355581A++	Lithium Ion	1750(h)	4.4	1
PGF364662A++	Lithium Ion	1212(h)	4.4	1
PGF368487A++	Lithium Ion	3000(h)	5.0	1
PGF3676B1A++	Lithium Ion	3400(h)	4.5	1
PGF373734A++	Lithium Ion	450(h)	5.0	1
PGF383450A++	Lithium Ion	700	12	1
PGF374167A++	Lithium Ion	1230(h)	4.4	1
PGF3766C5A++	Lithium Ion	3940(h)	4.4	1
PGF383450B++	Lithium Ion	800(g)	12	1
PGF383562A++	Lithium Ion	750	12	1
PGF383562C++	Lithium Ion	800	12	1
PGF383562D++	Lithium Ion	850	12	1
PGF384439A++	Lithium Ion	700(g)	12	1
PGF387156A++	Lithium Ion	1690(h)	4.4	1
PGF391941A++	Lithium Ion	280(h)	5.0	1
PGF394235A++	Lithium Ion	630(g)	12	1
PGF394635A++	Lithium Ion	700(g)	12	1
PGF397281A++	Lithium Ion	2500(h)	4.5	1
PGF403452A++	Lithium Ion	850(g)	12	1
PGF403953A++	Lithium Ion	980(g)	12	1
PGF404666A++	Lithium Ion	1363(h)	4.4	1
PGF413281A++	Lithium Ion	1444(h)	4.4	1
PGF413352C++	Lithium Ion	830(g)	12	1
PGF414757A++	Lithium Ion	1200(g)	12	1
PGF4173A7A++	Lithium Ion	3500(h)	4.4	1
PGF422033A++	Lithium Ion	250(h)	5.0	1
PGF423345A++	Lithium Ion	735(g)	12	1
PGF423345B++	Lithium Ion	740(g)	12	1
PGF423380A++	Lithium Ion	1350(h)	4.4	1
PGF423380B++	Lithium Ion	1420(h)	4.4	1
PGF423852A++	Lithium Ion	850	12	1
PGF423653A++	Lithium Ion	840	12	1
PGF423653C++	Lithium Ion	900(g)	12	1
PGF4258B8A++	Lithium Ion	3500(h)	4.4	1
PGF4350C3A++	Lithium Ion	3306(h)	4.4	1
PGF4358C3A++	Lithium Ion	3415(h)	4.4	1
PGF4358C4A++	Lithium Ion	3415(h)	4.4	1
PGF461936A++	Lithium Ion	300(h)	4.4	1

PGF463446A++	Lithium Ion	850(g)	12	1
PGF423852B++	Lithium Ion	850	12	1
PGF424337A++	Lithium Ion	700(g)	12	1
PGF453653A++	Lithium Ion	1000(g)	12	1
PGF454037A++	Lithium Ion	700(h)	4.4	1
PGF463998A++	Lithium Ion	2100(h)	4.5	1
PGF464161A++	Lithium Ion	1500(g)	4.2	1
PGF473352C++	Lithium Ion	930(g)	12	1
PGF473850C++	Lithium Ion	1050(g)	4.4	1
PGF473852B++	Lithium Ion	960	12	1
PGF473852C++	Lithium Ion	1100(g)	12	1
PGF474362A++	Lithium Ion	1350(h)	4.4	1
PGF493073A++	Lithium Ion	1400(h)	4.4	1
PGF4940A2A++	Lithium Ion	2145(h)	4.4	1
PGF4960C3A++	Lithium Ion	4000(h)	4.4	1
PGF501230A++	Lithium Ion	140(h)	4.6	1
PGF503467A++	Lithium Ion	1190(h)	4.4	1
PGF506764A++	Lithium Ion	2500(h)	4.4	1
PGF506971A++, PGF527072A++	Lithium Ion	2790(h)	4.4	1
PGF506971C++	Lithium Ion	2960(h)	4.4	1
PGF514199A++	Lithium Ion	2180(h)	4.4	1
PGF514199B++	Lithium Ion	1980(h)	4.4	1
PGF523345L++	Lithium Ion	940(g)	12	1
PGF527072C++	Lithium Ion	3000(h)	4.4	1
PGF534848A++	Lithium Ion	1500(h)	4.4	1
PGF523759A++	Lithium Ion	1250	12	1
PGF523759B++	Lithium Ion	1400(g)	4.4	1
PGF523759N++	Lithium Ion	1250(g)	12.0	1
PGF523838B++	Lithium Ion	940(h)	4.2	1
PGF525286A++	Lithium Ion	2420(h)	4.4	1
PGF533630A++	Lithium Ion	640(g)	12.0	1
PGF5360C3A++	Lithium Ion	4500(g)	4.5	1
PGF542649A++	Lithium Ion	750(g)	12	1
PGF542649F++	Lithium Ion	680(h)	4.4	1
PGF552030A++	Lithium Ion	320(g)	12	1
PGF553439A++	Lithium Ion	720	5	1
PGF553439B++	Lithium Ion	750(g)	12	1
PGF553439C++	Lithium Ion	740(g)	12	1
PGF553850B++	Lithium Ion	1250(g)	12	1
PGF553850B1++	Lithium Ion	1200(g)	12	1
PGF553852A++	Lithium Ion	1000	12	1
PGF553852A++	Lithium Ion	1300(g)	12	1
PGF556371A++	Lithium Ion	2760(h)	4.5	1
PGF563639A++	Lithium Ion	950(h)	4.4	1
PGF573630A++	Lithium Ion	950(g)	12	1
PGF583538A++	Lithium Ion	870(g)	12	1

PGF584339A++	Lithium Ion	1170(h)	4.4	1
PGF585771A++	Lithium Ion	2710(h)	4.4	1
PGF603937A++	Lithium Ion	950(g)	12	1
PGF6048B0A++	Lithium Ion	3580(h)	4.5	1
PGF606168A++	Lithium Ion	2600(j)	18.5	1
PGF614568A++	Lithium Ion	2100(h)	4.4	1
PGF623380A++	Lithium Ion	1830(j)	4.4	1
PGF654568A++	Lithium Ion	2400(j)	18.5	1
PGF654568C++	Lithium Ion	2300(h)	4.4	1
PGF3360C3A++	Lithium Ion	2740(h)	4.4	1
PGF663895A++	Lithium Ion	2750(h)	4.4	1
ICP103450R++	Lithium Ion	1900(g)	12	1
ICP103450S++, ICP103450V++	Lithium Ion	2000(h)	4.4	1
ICP413450A++	Lithium Ion	760(h)	4.4	1
ICP413450A++	Lithium Ion	760(g)	12	1
ICP403450A++, ICP403450M++, ICP403450N++	Lithium Ion	800(g)	12	1
ICP404251A++, ICP404251M++	Lithium Ion	1020(h)	4.4	1
ICP423643A++, ICP423643N++	Lithium Ion	690(g)	12	1
ICP433857A++	Lithium Ion	1000(i)	12	1
ICP433857V++	Lithium Ion	1130(i)	4.4	1
ICP434354M++	Lithium Ion	1200(h)	4.4	1
ICP434456A++	Lithium Ion	1220(j)	4.2 (i) or 10 (i)	1
ICP434456B++	Lithium Ion	1420(i)	4.4	1
ICP434456H++	Lithium Ion	1320(h) or (i)	4.4(h) or 10.0 (i)	1
ICP453739A++	Lithium Ion	740(g)	4.4	1
ICP463048A++	Lithium Ion	600(g)	4.4	1
ICP463048B++	Lithium Ion	650(g)	4.4	1
ICP463442A++	Lithium Ion	1000(i)	12	1
ICP463446H++	Lithium Ion	900(h)	4.5	1
ICP463443R++	Lithium Ion	810(h)	4.4	1
ICP463446S++	Lithium Ion	800(g)	12	1
ICP463448A++	Lithium Ion	650(g)	12	1
ICP463446M++, ICP463446N++, ICP463446A++, ICP463446V++	Lithium Ion	800(g) or (h)	12(g) or 4.4 (h)	1
ICP463443A++	Lithium Ion	810(g) or (h)	4.4	1
ICP463446R++	Lithium Ion	800(g)	12	1
ICP463448R++	Lithium Ion	750(g)	12	1
ICP463446S++	Lithium Ion	800(g)	12	1
ICP463446T++	Lithium Ion	830(g)	12	1
ICP463448C++	Lithium Ion	670(g)	12	1
ICP463450A++	Lithium Ion	720(g)	4.4	1
ICP463450B++	Lithium Ion	930(g)	12	1
ICP463450C++	Lithium Ion	1000(g)	12	1
ICP463450D++	Lithium Ion	880(h)	4.4	1
ICP463450F++	Lithium Ion	1000(h)	4.55	1

ICP463450N++, ICP463450M++	Lithium Ion	930(g)	12	1
ICP463450R++	Lithium Ion	780(g)	4.4	1
ICP463450T++	Lithium Ion	830(g) or (h)	12 (g) 4.4 (h)	1
ICP463450U++	Lithium Ion	830(g) or (h)	12 (g) 4.4 (h)	1
ICP463450V++	Lithium Ion	830(g)	12	1
ICP463450W++	Lithium Ion	1000(g)	12	1
ICP463651M++, ICP463651N++	Lithium Ion	960(h)	4.4	1
ICP463651V++	Lithium Ion	1000(h)	4.4	1
ICP464656M++	Lithium Ion	1500(h)	4.4	1
ICP474350A++, ICP474350L++, ICP474350N++, ICP474350B++, ICP474350M++	Lithium Ion	1200(g) or (h)	12(g) or 4.4(h)	1
ICP474354V++	Lithium Ion	1350(h)	4.4	1
ICP474862M++	Lithium Ion	1730(h)	4.4	1
ICP484462H++	Lithium Ion	1600(h)	4.4	1
ICP484462M++	Lithium Ion	1500(h)	4.4	1
ICP484462V++	Lithium Ion	1600(h)	4.4	1
ICP485155M++	Lithium Ion	1650(h)	4.4	1
ICP485162M++	Lithium Ion	1800(h)	4.4	1
ICP494051A++, ICP494051N++	Lithium Ion	1140(g)	12	1
ICP514657M++	Lithium Ion	1650(h)	4.4	1
ICP515149H++	Lithium Ion	1600(h)	4.4	1
ICP515149T++	Lithium Ion	1520(h)	4.4	1
ICP503442A++, ICP503442M++, ICP503442N++	Lithium Ion	810(g) or (h)	12(g) 4.4(h)	1
ICP503445A++, ICP503445M++, ICP503445N++	Lithium Ion	920(g)	12	1
ICP535154M++	Lithium Ion	1750(h)	4.4	1
ICP553443B++	Lithium Ion	1000(g)	12	1
ICP553443C++	Lithium Ion	1000(g)	4.4	1
ICP503445C++	Lithium Ion	1000(g)	4.4	1
ICP544462H++	Lithium Ion	1800(h)	4.4	1
ICP553443D++	Lithium Ion	910(g)	12	1
ICP553443E++	Lithium Ion	920(g)	4.4	1
ICP553443F++	Lithium Ion	960(h)	4.4	1
ICP503465A++	Lithium Ion	900(g)	4.4	1
ICP503465B++	Lithium Ion	1000(h)	4.4	1
ICP553048A++	Lithium Ion	720(g)	12	1
ICP553048B++	Lithium Ion	740(g)	12	1
ICP553048C++	Lithium Ion	740(g)	12	1
ICP553048D++	Lithium Ion	740(g)	12	1
ICP553048E++	Lithium Ion	850(g)	12	1
ICP553436A++	Lithium Ion	650(h)	4.4	1
ICP553436B++	Lithium Ion	760(h)	4.4	1
ICP553442A++	Lithium Ion	1000(h)	4.2	1
ICP553450A++	Lithium Ion	1020(g)	12	1
ICP553450B++, ICP553450F++	Lithium Ion	1150(g)	12	1
ICP553450C++	Lithium Ion	1000(h)	4.2	1
ICP553450G++	Lithium Ion	700(h)	4.4	1

ICP553450E++	Lithium Ion	1100(h)	4.4	1
ICP553450K++	Lithium Ion	1000(h)	4.4	1
ICP553450M++	Lithium Ion	940(g)	12	1
ICP553450R++	Lithium Ion	900(g)	4.4	1
ICP553450S++	Lithium Ion	970	12	1
ICP553450T++	Lithium Ion	1050(g)	12	1
ICP553450U++	Lithium Ion	1000(g)	12	1
ICP553450V++	Lithium Ion	1000(g)	12	1
ICP553450W++, ICP553450N++	Lithium Ion	1130(g)	12	1
ICP554437A++	Lithium Ion	1080(i)	4.4	1
ICP554845A++	Lithium Ion	1500(i)	4.4	1
ICP555149H++	Lithium Ion	1730(i) or (h)	12(i) or 4.4(h)	1
ICP555149M++	Lithium Ion	1500(h)	4.4	1
ICP555149V++	Lithium Ion	1650(h)	4.4	1
ICP563450N++	Lithium Ion	1150(h)	4.4	1
ICP563450T++	Lithium Ion	1120(h)	4.4	1
ICP563840A++, ICP563840N++	Lithium Ion	1000(g)	12	1
ICP564136A++	Lithium Ion	1000(i)	12	1
ICP564443A++, ICP564443L++	Lithium Ion	1200(h)	4.2	1
ICP564443B++	Lithium Ion	1320(i)	4.4	1
ICP564546M++	Lithium Ion	1430(h)	4.4	1
ICP565154M++	Lithium Ion	1850(h)	4.4	1
ICP583136M++	Lithium Ion	700(h)	4.4	1
ICP603443A++, ICP603443N++	Lithium Ion	1000(h)	4.4	1
ICP633048C++	Lithium Ion	830(g)	12	1
ICP633048D++	Lithium Ion	720(g)	12	1
ICP633058A++	Lithium Ion	800(g)	12	1
ICP633058B++	Lithium Ion	870(g)	12	1
ICP633640A++, ICP633640N	Lithium Ion	1040(g)	12	1
ICP634136A++	Lithium Ion	1050(i)	12	1
ICP634137A++	Lithium Ion	1070(g)	12	1
ICP634657M++	Lithium Ion	1000(h)	4.4	1
ICP653039A++	Lithium Ion	900(h)	4.4	1
ICP653450R++	Lithium Ion	950(g)	12	1
ICP653450S++	Lithium Ion	1000(g)	12	1
ICP653450T++	Lithium Ion	1130(g)	12	1
ICP653450A++	Lithium Ion	900(g)	12	1
ICP653465A++	Lithium Ion	1200(g)	12	1
ICP653450U++	Lithium Ion	1230(g)	12	1
ICP653850A++, ICP653850N++	Lithium Ion	1440(h)	4.4	1
ICP653850B++	Lithium Ion	1500(h)	4.4	1
ICP663450A++, ICP663450M++	Lithium Ion	1330(g)	4.4	1
ICP703450A++	Lithium Ion	1400(h)	4.4	1
ICP703450T++	Lithium Ion	1370(h)	4.4	1
ICP723141M++	Lithium Ion	1030(h)	4.4	1
ICP723141S++	Lithium Ion	1150(h)	4.4	1

ICP803450N++	Lithium Ion	1450(g)	12	1
ICP803450R++	Lithium Ion	1350(g)	12	1
ICP803450S++	Lithium Ion	1450(g)	12	1
ICP813851A++, ICP813851N++	Lithium Ion	1700(g)	12	1
ICP823450A++, ICP823450N++	Lithium Ion	1480(g)	12	1
ICP553443A++, ICP553443M++, ICP553443N++	Lithium Ion	900(g) or (h)	12(g) 4.4(h)	1
ICP553446A++, ICP553446N++	Lithium Ion	1000(g)	12	1
ICP553856A++	Lithium Ion	1320(i)	12	1
ICP553856B++	Lithium Ion	1450(i)	4.4	1
ICP553856C++	Lithium Ion	1560(i)	4.4	1
ICP553856H++	Lithium Ion	1480(i)	10	1
ICP553446A++, ICP553446N++	Lithium Ion	1030(g)	12	1
ICP553446M++	Lithium Ion	1000(h)	4.4	1
ICP653443A++	Lithium Ion	1100(g)	12	1
ICP653443B++	Lithium Ion	1100(g)	12	1
ICP653443M++	Lithium Ion	1100(g)	4.4	1
ICP653443N++	Lithium Ion	1100(g)	4.4	1
ICP664462M++	Lithium Ion	2200(h)	4.4	1
ICP923446N++	Lithium Ion	1550(g)	12	1
ICP923446A++	Lithium Ion	1550(g)	12	1
ICP533640A++, ICP532640M++, ICP533640N++	Lithium Ion	930(g) or (h)	12(g) 4.4(h)	1
ICP483640A++, ICP483640M++, ICP483640N	Lithium Ion	830(g)	12	1
PGF514757A++	Lithium Ion	1500	12	1
PGF564149A++	Lithium Ion	1280	5	1
PGF644757A++	Lithium Ion	1800(g)	12	1

(a) These cells and batteries are not rechargeable. The circuit containing these cells or batteries is to contain a protective component that prevents charging. The circuitry is to include a current-limiting component intended to protect the cell or battery, in the event the protective component malfunctions, from a charging current in excess of the maximum abnormal charging current indicated.

(b) These cells and batteries are rechargeable. The circuitry containing these cells or batteries is to contain protective components intended to protect the cells or batteries from currents in excess of the maximum charging current and voltage indicated.

(c) User - These primary cells and batteries are intended for use in applications subject to replacement by a user.

(d) Technician - These primary cells and batteries are intended for use in applications subject to replacement only by a trained service technician.

(e) The Max Charging Voltage noted in the column is the maximum voltage employed during the abnormal charging test of the secondary lithium ion cell. However, the maximum recommended charging voltage for lithium ion cells is 4.2 V, unless indicated otherwise.

(f) Test Compliance - The cells comply with the tests in UL 1642 as noted:

- 1- Complies with all single-cell tests.
- 2- Complies with all single-cell tests except the impact test.
- 3- Complies with all single-cell tests except the projectile test.
- 4- Complies with all single-cell tests except the crush test.

(g) With Recognized PTC

(h) Without PTC

(i) With Recognized Thermal Link

(j) With Recognized regulating thermostat

++ These cells may have an optional single alphanumeric suffix.

Marking: Company name, model designation and the Recognized Component Mark.

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