

GP Batteries

WORLDWIDE HEADQUARTERS HONG KONG

GPI INTERNATIONAL LIMITED

Gold Peak Building, 8/F, 30 Kwai Wing Road,
Kwai Chung, N.T., Hong Kong
Tel: (852) 2484 3333 Fax: (852) 2480 5912
E-mail address: gpil@goldpeak.com
Website: <http://www.gpbatteries.com.hk>

SALES & MARKETING BRANCH OFFICES

ASEAN
GP BATTERY MARKETING (SINGAPORE) PTE. LIMITED
37 Pioneer Road, Singapore 639579
Tel: (65) 6559 9760 Fax: (65) 6559 9761

MALAYSIA
GP BATTERY MARKETING (MALAYSIA) SDN. BHD.
Lot 8, Jalan Pemberita U1/49,
Temasya Industrial Park,
40150 Shah Alam, Selangor Darul Ehsan, Malaysia
Tel: (60) 3 5569 3499 Fax: (60) 3 5569 3498

THAILAND
GP BATTERY MARKETING (THAILAND) CO., LTD.
102 Soi Sukhumvit 26, Sukhumvit Road,
Klongton, Klongtoey,
Bangkok 10110 Thailand
Tel: (66) 2 661 3688 Fax: (66) 2 661 3602

TAIWAN
GOLD PEAK INDUSTRIES (TAIWAN) LIMITED – TAIPEI OFFICE
Room 1200, International Trade Building, No.205 Sec.1,
Tun Hua South Road, Taipei 10647, Taiwan R.O.C.
Tel: (886) 2 2741 4919 Fax: (886) 2 2731 4868/2741 0192

CHINA
HUIZHOU CHAO BA BATTERY TECHNOLOGY CO., LTD
2/F, South of Hongye Industrial Building,
Tianluo Mountain, 14th Industrial District,
Huizhou City, Guangdong, China
(Postal Code: 516003)
Tel: (86) 752 282 8428 Fax: (86) 752 280 2872

HONG KONG
GP BATTERY MARKETING (H.K.) LIMITED
Gold Peak Building, 8/F, 30 Kwai Wing Road,
Kwai Chung, N.T., Hong Kong
Tel: (852) 2420 0281 Fax: (852) 2494 9349

KOREA
GP BATTERY MARKETING (KOREA) LIMITED
Kunsul Hoekwan Building, 9/F, 71-2 Non Hyun-Dong,
Kang Nam-Gu, Seoul, South Korea
Tel: (82) 2 549 7188/9, 2 516 3936/7
Fax: (82) 2 514 0623, 2 516 0621

U.S.A.
GOLD PEAK INDUSTRIES (NORTH AMERICA) INC.
11235 West Bernardo Court, San Diego,
CA 92127-1638, U.S.A.
Tel: (1) 858 674 6099 Fax: (1) 858 674 6496

CANADA
GP BATTERY MARKETING INC.
Unit 7, 7780 Woodbine Avenue, Markham,
Ontario, Canada L3R 2N7
Tel: (1) 905 474 9507 Fax: (1) 905 474 9452

LATIN AMERICA
GP BATTERY MARKETING (LATIN AMERICA) INC.
8370 NW, 66th Street, Miami, Florida 33166, U.S.A.
Tel: (1) 305 471 7717 Fax: (1) 305 471 7718

EUROPE
GP BATTERIES EUROPE B.V.
Kortijzer 4, 5721 VE Asten,
The Netherlands
Tel: (31) 493 681030 Fax: (31) 493 681039

GERMANY
GP BATTERY MARKETING (GERMANY) GMBH
Niederforricker Str. 62, 40667 Meerbusch, Germany
Tel: (49) 2132 971504/5/6 Fax: (49) 2132 80145

POLAND
GP BATTERY (POLAND) SP. Z.O.O.
ul. Slowicza 19, PL-02170 Warsaw, Poland
Tel: (48) 22 868 0490 Fax: (48) 22 846 7535

U.K.
GP BATTERIES (U.K.) LIMITED
Summerfield Avenue, Chelston Business Park,
Wellington, Somerset, TA21 9JF, U.K.
Tel: (44) 1 823 660 044 Fax: (44) 1 823 665 595

ITALY
GP BATTERY MARKETING ITALY S.R.L.
Via Alessandro Volta 3,
20094 Assago (Mi), Italy
Tel: (39) 02 488 2512 Fax: (39) 02 488 2865

SCANDINAVIA
GPBM NORDIC AB
Grimboasen 5, SE-417 49, Goteborg, Sweden
Tel: (46) 31 558 600 Fax: (46) 31 556 813

GPPA4GE-A 12/04 All rights reserved. No parts of this catalogue written or pictorial may be reproduced without the permission of GPI International Ltd.

Distributed by:

GP Batteries



Primary Batteries

Cylindrical Type

Ultra Alkaline

Model No.	Dimension (mm)		Voltage (V)	Cross Reference			
	Diameter	Height		IEC	JIS	Energizer	Other
13AU	34.2	61.5	1.5	LR20	LR20	X95	D
14AU	26.2	50.0	1.5	LR14	LR14	X93	C
15AU	14.5	50.5	1.5	LR6	LR6	X91	AA
24AU	10.5	44.5	1.5	LR03	LR03	X92	AAA
908AU	66.0(L) x 66.0(W) x 111.0(H)		6.0	4LR25	4LR25X	529	-
1604AU	25.5(L) x 16.5(W) x 47.5(H)		9.0	6LR61	6LR61	X22	-

Super Alkaline

Model No.	Dimension (mm)		Voltage (V)	Cross Reference			
	Diameter	Height		IEC	JIS	Energizer	Other
13A	34.2	61.5	1.5	LR20	LR20	E95	D
14A	26.2	50.0	1.5	LR14	LR14	E93	C
15A	14.5	50.5	1.5	LR6	LR6	E91	AA
24A	10.5	44.5	1.5	LR03	LR03	E92	AAA
25A	8.3	42.5	1.5	LR8D425	-	E96	AAAA
312A	62.0(L) x 22.0(W) x 67.0(H)		4.5	3LR12	-	-	-
908A	66.0(L) x 66.0(W) x 111.0(H)		6.0	4LR25	4LR25X	529	-
910A	12.0	30.2	1.5	LR1	LR1	E90	N
1604A	25.5(L) x 16.5(W) x 47.5(H)		9.0	6LR61	6LR61	522	-
1412AP	35.5(L) x 9.2(W) x 48.4(H)		6.0	4LR61	4LR61	539	J

Digi 1 Nickel Zinc

Model No.	Dimension (mm)		Voltage (V)	Cross Reference			
	Diameter	Height		IEC	JIS	Eveready	Other
15NZ	14.5	50.5	1.5	-	-	-	AA

Greencell Extra Heavy Duty

Model No.	Dimension (mm)		Voltage (V)	Cross Reference			
	Diameter	Height		IEC	JIS	Eveready	Other
13G	34.2	61.5	1.5	R20P	R20P	1250	D
14G	26.2	50.0	1.5	R14P	R14P	1235	C
15G	13.9	50.0	1.5	R6P	R6P	1215	AA
24G	10.5	44.5	1.5	R03	R03	1212	AAA
312G	62.0(L) x 22.0(W) x 67.0(H)		4.5	3R12	3R12	-	-
908G	66.0(L) x 66.0(W) x 111.0(H)		6.0	4R25	4R25	1209	-
918G	134.0(L) x 70.0(W) x 127.0(H)		6.0	4R25-2	4R25-2	-	-
1604G	26.5(L) x 17.5(W) x 48.5(H)		9.0	6F22	6F22	1222	-

Supercell Super Heavy Duty

Model No.	Dimension (mm)		Voltage (V)	Cross Reference			
	Diameter	Height		IEC	JIS	Eveready	Other
13S	32.7	61.0	1.5	R20C	R20C	1050	D
14S	26.2	50.0	1.5	R14C	R14C	1035	C
15S	13.9	50.0	1.5	R6C	R6C	1015	AA
24S	10.5	44.5	1.5	R03	R03	912	AAA
210S	21.8	74.6	3.0	2R10	2R10	-	-
312S	62.0(L) x 22.0(W) x 67.0(H)		4.5	3R12	3R12	1289/AD28	210
908S	66.0(L) x 66.0(W) x 111.0(H)		6.0	4R25	4R25X	509	-
918S	134.0(L) x 70.0(W) x 127.0(H)		6.0	4R25-2	4R25-2	918	-
1603S	66.0(L) x 52.0(W) x 81.0(H)		9.0	6F100	6F100	276	S306
1604S	26.5(L) x 17.5(W) x 48.5(H)		9.0	6F22	6F22	1222	-

Powercell Heavy Duty

Model No.	Dimension (mm)		Voltage (V)	Cross Reference			
	Diameter	Height		IEC	JIS	Eveready	Other
13E	34.2	61.5	1.5	R20S	R20S	950	D
14E	26.2	50.0	1.5	R14S	R14S	935	C
15E	13.9	50.0	1.5	R6S	R6S	915	AA
24E	10.5	44.5	1.5	R03	R03	-	AAA
1604E	26.5(L) x 17.5(W) x 48.5(H)		9.0	6F22	6F22	-	-

Photo Lithium

Model No.	Dimension (mm)		Voltage (V)	Cross Reference			
	Diameter	Height		IEC	JIS	Eveready	Duracell
CR123A	16.8	34.5	3.0	CR17345	CR123A	123	DL123A
CR-P2	35.0(L) x 19.5(W) x 36.0(H)		6.0	CR-P2	CR-P2	223	DL223A
2CR5	34.0(L) x 17.0(W) x 45.0(H)		6.0	2CR5	2CR5	2CR5	DL245
CR2	15.6	27.0	3.0	-	-	1CR2	DLCR2

Major Applications

Digital cameras,
mobile tools, motor toys,
high drain appliances.



Primary Batteries



Button Type

Major Applications

Calculators, electronic toys, hearing aids, lighters, photos and watches.

Silver Oxide

Model No.	Dimension (mm)		Voltage (V)	Nominal Capacity (mAh)	Cross Reference				
	Diameter	Height			IEC/JIS	Eveready	Varta	Duracell	Sony
301	11.6	4.2	1.55	120	SR43	301	V301	D301	SR43SW
303	11.6	5.6	1.55	165	SR44	303	V303	D303	SR44SW
315	7.9	1.65	1.55	21	SR67	315	-	D315	SR716SW
317	5.8	1.65	1.55	11.5	SR62	317	V317	D317	SR516SW
319	5.8	2.7	1.55	20	SR64	319	-	D319	SR527SW
321	6.8	1.65	1.55	16	SR65	321	V321	D321	SR616SW
329	7.9	3.1	1.55	37	-	329	-	D329	SR731SW
337	4.8	1.65	1.55	7.5	-	337	-	-	SR416SW
348	4.8	2.15	1.55	12	-	-	-	-	SR421SW
357	11.6	5.4	1.55	165	SR44	357	V357	D357	SR44W
362	7.9	2.1	1.55	24	SR58	362	V362	D362	SR721SW
364	6.8	2.15	1.55	23	SR60	364	V364	D364	SR621SW
366	11.6	1.65	1.55	33	-	366	-	-	SR1116SW
370	9.5	2.1	1.55	44	SR69	370	V370	D370	SR920W
371	9.5	2.1	1.55	44	SR69	371	V371	D371	SR920SW
373	9.5	1.65	1.55	26	SR68	373	V373	-	SR916SW
S76E	11.6	5.4	1.55	130	SR44	-	V76PX	MS76	SR44W
377	6.8	2.6	1.55	25	SR66	377	V377	D377	SR626SW
379	5.8	2.15	1.55	14	SR63	379	V379	D379	SR521SW
381	11.6	2.1	1.55	40	SR55	381	V381	-	SR1120SW
384	7.9	3.6	1.55	42	SR41	384	V384	D384	SR41SW
386	11.6	4.2	1.55	120	SR43	386	V386	D386	SR43W
389	11.6	3.1	1.55	70	SR54	389	V389	D389	SR1130W
390	11.6	3.1	1.55	70	SR54	390	V390	D390	SR1130SW
391	11.6	2.1	1.55	40	SR55	391	V391	D391	SR1120W
392	7.9	3.6	1.55	42	SR41	392	V392	D392	SR41W
393	7.9	5.4	1.55	70	SR48	393	V393	D393	SR48W
394	9.5	3.6	1.55	60	-	394	V394	D394	SR936SW
395	9.5	2.7	1.55	55	SR57	395	V395	D395	SR927SW
396	7.9	2.65	1.55	30	SR59	396	V396	D396	SR726W
397	7.9	2.65	1.55	30	SR59	397	V397	D397	SR726SW
399	9.5	2.7	1.55	55	SR57	399	V399	D399	SR927W

Lithium Cell

Model No.	Dimension (mm)		Voltage (V)	Nominal Capacity (mAh)	Cross Reference			
	Diameter	Height			IEC /JIS	Eveready	Varta	Duracell
CR1/3N	11.6	10.8	3.0	160	CR11108	2L76	CR1/3N	DL1/3N
CR1025	10.0	2.5	3.0	30	CR1025	CR1025	-	DL1025
CR1216	12.5	1.6	3.0	25	CR1216	CR1216	CR1216	DL1216
CR1220	12.5	2.0	3.0	36	CR1220	CR1220	CR1220	DL1220
CR1616	16.0	1.6	3.0	55	CR1616	CR1616	CR1616	DL1616
CR2016	20.0	1.6	3.0	80	CR2016	CR2016	CR2016	DL2016
CR2025	20.0	2.5	3.0	150	CR2025	CR2025	CR2025	DL2025
CR2032	20.0	3.2	3.0	210	CR2032	CR2032	CR2032	DL2032
CR2430	24.5	3.0	3.0	270	CR2430	CR2430	CR2430	DL2430

Major Applications

Computer memory back-ups, photos, remote controls and watches.

Alkaline

Model No.	Dimension (mm)		Voltage (V)	Nominal Capacity (mAh)	Cross Reference				
	Diameter	Height			IEC	JIS	Eveready	Varta	Duracell
164	6.8	2.15	1.5	8	-	-	-	-	LR620
A76	11.6	5.4	1.5	110	LR44	LR44	A76	V13GA	PX76A
A76P	11.6	5.4	1.5	140	LR44	LR44	A76	V13GA	PX76A
186	11.6	4.2	1.5	70	LR43	LR43	186	V12GA	D186A
189	11.6	3.05	1.5	44	LR54	LR54	189	V10GA	D189A
191	11.6	2.05	1.5	24	LR55	LR55	191	V8GA	D191A
192	7.9	3.6	1.5	24	LR41	LR41	192	-	-
PX625A	15.6	5.95	1.5	190	LR9	LR9	-	V625U	PX625A

High Voltage Alkaline

Model No.	Dimension (mm)		Voltage (V)	Nominal Capacity (mAh)	Cross Reference				
	Diameter	Height			IEC	JIS	Eveready	Varta	Duracell
10A	10	21.6	9.0	38	-	-	-	-	-
11A	10	16.0	6.0	38	-	-	-	-	MN11
23A	10	28.0	12.0	38	-	-	A23	V23GA	MN21
23AE	10	28.0	12.0	55	-	-	A23	V23GA	MN21
26A	7.7	15.3	6.0	18	-	-	-	-	-
27A	7.7	28.0	12.0	20	-	-	-	-	MN27
29A	7.7	21.4	9.0	18	-	-	-	-	-
476A	13.0	25.2	6.0	105	4LR44	4LR44	A544	V4034PX	PX28A

High Voltage Silver Oxide

Model No.	Dimension (mm)		Voltage (V)	Nominal Capacity (mAh)	Cross Reference			
	Diameter	Height			IEC /JIS	Eveready	Varta	Duracell
476	13.0	25.2	6.0	165	4SR44	-	V28PX	PX28

Hearing Aid Zinc Air

Model No.	Dimension (mm)		Voltage (V)	Nominal Capacity (mAh)	Cross Reference			
	Diameter	Height			IEC /JIS	Eveready	Varta	Duracell
ZA10	5.8	3.6	1.4	75	PR70	AC10	-	DA230
ZA13	7.9	5.4	1.4	230	PR48	AC13	V13A	DA13
ZA312	7.9	3.6	1.4	125	PR41	AC312	V312A	DA312
ZA675	11.6	5.4	1.4	620	PR44	AC675	V675HPA	DA675

Major Applications

Calculators, electronic toys, melody cards, photos, remote controls and watches.

Major Applications

Electronic toys, electronic instruments, lighters, photos and remote controls.

Major Applications

Photos and electronic toys.

Major Applications

Hearing aids and photographic equipments.

Rechargeable Batteries



Industrial Series – Cylindrical Type

Nickel Metal Hydride Series

Cell Size	Model No.	Nominal Voltage (V)	Capacity (0.2C discharge)*(mAh)		Nominal Dimension (mm)		Weight (g)	Standard Charge		1 Hr Charge Current (mA)#		
			Minimum	Typical	Diameter	Height		Current (mA)	Time (hour)			
High Capacity Series												
AAA	2/3 AAA	GP40AAAM	1.2	400	428	10.2	29.2	7.7	40	16	400	
	4/5 AAA	GP50AAASH	1.2	500	515	10.4	36.3	9.3	50	16	500	
	AAA	GP65AAAH**	1.2	650	680	10.5	43.7	13	65	16	650	
	AAA	GP70AAAH**	1.2	700	730	10.5	43.7	13	70	16	700	
	AAA	GP75AAAH**	1.2	750	780	10.5	43.7	13	75	16	750	
	AAA	GP80AAAH	1.2	780	800	10.5	43.7	14	80	16	800	
	AAAL	GP85AAALH	1.2	850	880	10.5	50	15	85	16	850	
	7/5 AAAL	GP100AAALH	1.2	1000	1050	10.5	66.5	19.5	100	16	1000	
	9/5 AAAL	GP120AAALH	1.2	1200	1250	10.5	80	23	120	16	1200	
AA	2/3 AA	GP75AAH	1.2	750	770	14.5	28.7	15	75	16	750	
	AA	GP150AAM**	1.2	1500	1530	14.4	48.2	26	150	16	1500	
	AA	GP160AAH**	1.2	1600	1640	14.5	49.2	26	160	16	1600	
	AA	GP170AAH	1.2	1700	1750	14.5	49.2	27	170	16	1700	
	AA	GP180AAH	1.2	1800	1850	14.5	49.2	27	180	16	1800	
AF	7/5 AA	GP190AAH	1.2	1900	1960	14.5	65	35	190	16	1900	
	4/5 AF	GP211AFH**	1.2	2100	2160	17	43	32	210	16	2100	
	AF	GP250AFH**	1.2	2500	2550	17	50.2	39	250	16	2500	
	AF	GP270AFH	1.2	2600	2700	17	50.2	39.5	270	16	2700	
	7/5 AF	GP370AFM	1.2	3700	3750	17.2	67	52	370	16	3700	
N	7/5 AF	GP380AFH**	1.2	3700	3800	17.5	67	53.5	380	16	3800	
	N	GP50NH	1.2	500	520	11.65	29.4	9.8	50	16	500	
	18650	18650	GP410LAH	1.2	4100	4220	18.3	65.5	58	410	16	4100
	18670	18670	GP450LAH**	1.2	4300	4500	18.3	67	60	450	16	4500
	Sub-C	4/5 Sub-C	GP200SCH	1.2	2000	2100	23	34	48	200	16	2000
		Sub-C	GP330SCH	1.2	3100	3300	23	44.5	62	330	16	3300
	C	C	GP350CH	1.2	3500	3850	25.8	50	78.5	350	16	3500
		C	GP400CH	1.2	4000	4200	25.8	50	82	400	16	4000
	D	D	GP700DH**	1.2	7000	7350	33	60	155	700	16	7000
		D	GP900DH**	1.2	9000	9225	33	60	170	900	16	Not Applicable
F	F	GP1300FH	1.2	13000	13650	33	90	247	1300	16	Not Applicable	

Typical Ambient Temperature : Standard Charge : 0°C to 40/45°C, Fast Charge : 10°C to 40/45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C

High Drain Series

AA	AA	GP130AAHE	1.2	1300	1350	14.5	49.2	25.5	130	16	1300
Sub-C	Sub-C	GP300SCH	1.2	2800	3000	23	43	61	300	16	3000

Typical Ambient Temperature : Standard Charge : 0°C to 40/45°C, Fast Charge : 10°C to 40/45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C

High Temperature Series

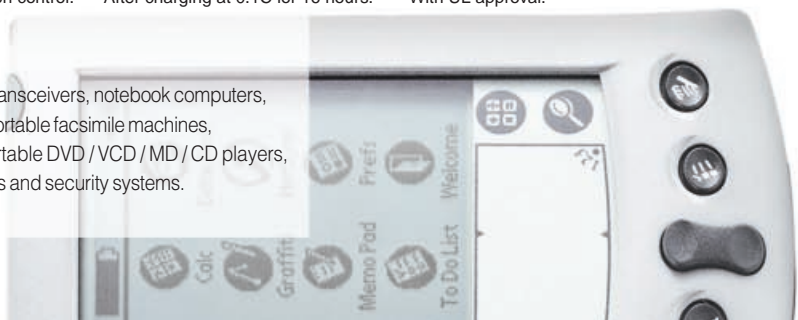
AAA	AAA	GP60AAHT	1.2	600	630	10.5	43.7	13	60	16	Not Applicable
AA	AA	GP125AAMT**	1.2	1250	1280	14.4	48.2	26	125	16	Not Applicable
AF	4/5 AF	GP160AFHT	1.2	1600	1680	17	43	33	160	16	Not Applicable
	AF	GP210AFHT	1.2	2100	2205	17	50	38	210	16	Not Applicable
18700	18700	GP400LAHT	1.2	4000	4200	18.3	70	66	400	16	Not Applicable
Sub-C	Sub-C	GP220SCHT**	1.2	2200	2420	23	43	53	220	16	Not Applicable
	Sub-C	GP220SCHTD	1.2	2200	2420	23	42	53.5	220	16	Not Applicable

Typical Ambient Temperature : Charge : 0°C to 70°C, Discharge : -20°C to 70°C, Storage : -20°C to 35°C

One hour rate with charge termination control. * After charging at 0.1C for 16 hours. ** With UL approval.

Major Applications

Cellular phones, cordless phones, transceivers, notebook computers, personal digital assistants (PDAs), portable facsimile machines, digital video cameras, LCD TVs, portable DVD / VCD / MD / CD players, emergency lightings, remote controls and security systems.



Nickel Metal Hydride Series

Cell Size	Model No.	Nominal Voltage (V)	Capacity (0.2C discharge)*(mAh)		Nominal Dimension (mm)		Weight (g)	Standard Charge		1 Hr Charge Current (mA)#	
			Minimum	Typical	Diameter	Height		Current (mA)	Time (hour)		
Standard Series											
AAAA	1/3 AAAA	GP10AAAAH	1.2	100	105	8.6	15.4	2.6	10	16	100
	1/2 AAAA	GP15AAAAH	1.2	150	168	8.6	20.5	3.5	15	16	150
	2/3 AAAA	GP20AAAAH	1.2	200	210	8.6	29.5	4.7	20	16	200
	AAAA	GP30AAAAH	1.2	300	320	8.4	40.6	6.5	30	16	300
	7/5 AAAA	GP50AAAAH	1.2	500	520	8.4	66	10.5	50	16	500
AAA	1/4 AAA	GP11AAAM	1.2	110	115	10.2	10.7	2.8	11	16	110
	1/3 AAA	GP16AAAM**	1.2	160	168	10.2	14.6	3.75	16	16	160
	1/2 AAA	GP33AAAH	1.2	315	330	10.4	22.4	6	33	16	330
	2/3 AAA	GP30AAAM	1.2	300	315	10.2	29.2	7.2	30	16	300
	4/5 AAA	GP40AAAH	1.2	400	450	10.4	36.3	8.5	40	16	400
AA	AAA	GP55AAAH**	1.2	550	578	10.5	43.7	13	55	16	550
	AAA	GP60AAAH**	1.2	600	630	10.5	43.7	13	60	16	600
	1/3 AA	GP25AAH	1.2	250	270	14.5	16.6	7	25	16	250
	2/3 AA	GP30AAH	1.2	300	320	14.5	28.7	10	30	16	300
	4/5 AA	GP135AAH	1.2	1350	1400	14.5	42.5	22.8	135	16	1350
AF	AA	GP60AAM	1.2	600	630	14.4	48.2	15	60	16	600
	AA	GP130AAM**	1.2	1300	1340	14.4	48.2	25	130	16	1300
	1/3 AF	GP45AFH	1.2	450	500	17	16.3	10	45	16	450
	1/2 AF	GP60AFH	1.2	600	650	17	22	14	60	16	600
	2/3 AF	GP100AFH	1.2	1000	1080	17	28.7	22	100	16	1000
N	2/3 AF	GP110AFH	1.2	1100	1133	17	28.5	21	110	16	1100
	4/5 AF	GP181AFH	1.2	1800	1860	17	43	32	180	16	1800
	AF	GP230AFH	1.2	2300	2350	17	50.2	36	230	16	2300
	1/3 N	GP13NH	1.2	130	137	11.65	12.4	3.85	13	16	130
	1/2 N	GP23NH	1.2	230	241	11.65	17	6.2	23	16	230
18210	N	GP36NH	1.2	360	380	11.65	29.4	8.6	36	16	360
	18210	GP80LAH	1.2	800	860	18.3	21.5	17	80	16	800
	4/5 Sub-C	GP170SCH	1.2	1700	1870	23	34	46	170	16	1700
	Sub-C	GP140SCH	1.2	1400	1470	23	43	40	140	16	1400
	Sub-C	GP220SCH**	1.2	2200	2420	23	43	55	220	16	2200
Sub-C	Sub-C	GP300SCHE	1.2	3000	3150	23	43	59	300	16	3000
	D	GP450DH	1.2	4500	4725	33	60	130	450	16	Not Applicable

Typical Ambient Temperature : Standard Charge : 0°C to 40/45°C, Fast Charge : 10°C to 40/45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C

Hobby Series

AAA	1/3 AAA	GP10AAAHR	1.2	100	110	10.4	15.6	3.9	10	16	100
	1/3 AAA	GP12AAAHR	1.2	120	130	10.5	17.7	4.4	12	16	120
	1/2 AAA	GP25AAAHR	1.2	250	260	10.5	23.5	6.3	25	16	250
AF	2/3 AF	GP110AFHR	1.2	1045	1100	17	28.5	21.5	110	16	1100
	4/5 AF	GP200AFHR	1.2	1900	2000	17.5	43.5	35.5	200	16	2000
Sub-C	-	GP130LAHR	1.2	1235	1300	18.3	27.5	25	130	16	1300
	2/3 Sub-C	GP130SCHR	1.2	1235	1300	23	27.5	32	130	16	1300
	4/5 Sub-C	GP220SCHR	1.2	2090	2200	23	34	44	220	16	2200
	Sub-C	GP300SCHR	1.2	2800	3000	23	43	61	300	16	3000
	Sub-C	GP330SCHR**	1.2	3100	3300	23	43	62	330	16	3300

Typical Ambient Temperature : Standard Charge : 0°C to 40°C, Fast Charge : 10°C to 40°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C

9V Series

9V	9V	GP17R7H**	7.2	170	175	15.7(T) x 26.5(W) x 48.5(H)	28	17	16	170
	9V	GP17R8H**	8.4	170	175	15.7(T) x 26.5(W) x 48.5(H)	32	17	16	170
	9V	GP17R9H**	9.6	170	175	15.7(T) x 26.5(W) x 48.5(H)	36	17	16	170
	9V	GP20R7H	7.2	200	210	15.7(T) x 26.5(W) x 48.5(H)	36.5	20	16	200
	9V	GP20R8H	8.4	200	210	15.7(T) x 26.5(W) x 48.5(H)	42.5	20	16	200
	9V	GP30R7H	7.2	300	320	17.5(T) x 26.2(W) x 48.5(H)	48.5	30	16	300

Typical Ambient Temperature : Standard Charge : 0°C to 45°C, Fast Charge : 10°C to 45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C
One hour rate with charge termination control. * After charging at 0.1C for 16 hours. ** With UL approval.



Rechargeable Batteries



Nickel Cadmium Series

Cell Size	Model No.	Nominal Voltage (V)	Capacity (0.2C discharge)*(mAh)		Nominal Dimension (mm)		Weight (g)	Standard Charge		1 Hr Charge Current (mA)#	
			Minimum	Typical	Diameter	Height		Current (mA)	Time (hour)		
High Temperature Series											
AA	AA	GP70AAST	1.2	700	770	14.4	48.2	21	70	16	Not Applicable
AF	2/3 AF	GP50AFKT	1.2	500	550	17	28.5	15	50	16	Not Applicable
Sub-C	Sub-C	GP160SCKT**	1.2	1600	1760	23	43	44	160	16	Not Applicable
	Sub-C	GP180SCKT	1.2	1800	1980	23	43	46	180	16	Not Applicable
C	C	GP250CKT**	1.2	2500	2750	25.8	50	70	250	16	Not Applicable
D	1/2 D	GP250DKT	1.2	2500	2750	33	37	82	250	16	Not Applicable
	D	GP450DKT**	1.2	4500	4950	33	60.5	120	450	16	Not Applicable
	D	GP450DKTSH	1.2	4500	4950	33	58	120	450	16	Not Applicable

Typical Ambient Temperature : Charge: 0°C to 70°C, Discharge: -20°C to 70°C, Storage: -20°C to 35°C

High Drain Series

Sub-C	4/5 Sub-C	GP120SCK	1.2	1200	1320	23	34	42	120	16	1200
	Sub-C	GP200SCK**	1.2	2000	2200	23	43	53	200	16	2000
D	D	GP450DK	1.2	4500	4950	33	60	130	450	16	4500
	D	GP500DK	1.2	5000	5500	33	60	140	500	16	5000

Typical Ambient Temperature : Standard Charge : 0°C to 40°C, Fast Charge : 10°C to 40°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C

Standard Series

AAA	AAA	GP30AAAK	1.2	300	320	10.5	43.7	10.5	30	16	300
	AAA	GP35AAAK	1.2	350	370	10.5	43.7	12	35	16	350
AA	1/3 AA	GP18AAK	1.2	180	200	14.5	16.6	8	18	16	180
	2/3 AA	GP30AAK	1.2	300	320	14.5	28.7	11	30	16	300
	2/3 AA	GP40AAK	1.2	400	450	14.5	28.7	12	40	16	400
	2/3 AA	GP50AAK	1.2	500	520	14.5	28.7	13	50	16	500
	4/5 AA	GP72AAS	1.2	720	760	14.4	42.5	19	72	16	720
	AA	GP60AAS**	1.2	600	660	14.4	48.2	19	60	16	600
	AA	GP70AAS**	1.2	700	770	14.4	48.2	21	70	16	700
	AA	GP80AAS**	1.2	800	850	14.4	48.2	21	80	16	800
	AA	GP100AAS**	1.2	1000	1030	14.4	48.2	26.5	100	16	1000
	7/5 AA	GP120AAK	1.2	1200	1300	14.5	65	31	120	16	1200
AF	1/3 AF	GP25AFK	1.2	250	275	17	16.3	10	25	16	250
	2/3 AF	GP55AFK	1.2	550	605	17	28.5	13.9	55	16	550
	2/3 AF	GP70AFK	1.2	700	770	17	28.5	16	70	16	700
	4/5 AF	GP120AFK	1.2	1200	1320	17	43	26.5	120	16	1200
	AF	GP140AFK**	1.2	1400	1540	17	50	32.5	140	16	1400
	7/5 AF	GP200AFK	1.2	2000	2200	17.5	67.5	46.3	200	16	2000
	N	N	GP23NK	1.2	230	250	12	30	8.5	23	16
Sub-C	Sub-C	GP130SCK	1.2	1300	1430	23	43	44.5	130	16	1300
	Sub-C	GP160SCK**	1.2	1600	1760	23	43	47	160	16	1600
C	1/2 C	GP65CK**	1.2	650	715	25.8	23.6	29	65	16	Not Applicable
D	1/2 D	GP250DK	1.2	2500	2750	33	37	82	250	16	Not Applicable

Typical Ambient Temperature : Standard Charge : 0°C to 40/45°C, Fast Charge : 10°C to 40/45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C

Economy Series

Sub-C	Sub-C	GP130SCKE	1.2	1300	1430	23	43	44.5	130	16	1300
	Sub-C	GP160SCKE	1.2	1600	1760	23	43	47	160	16	1600

Typical Ambient Temperature : Standard Charge : 0°C to 40°C, Fast Charge : 10°C to 40°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C

VC Series

Sub-C	Sub-C	GP160SCKV	1.2	1600	1760	23	43	46	160	16	1600
-------	-------	-----------	-----	------	------	----	----	----	-----	----	------

Typical Ambient Temperature : Standard Charge : 0°C to 40°C, Fast Charge : 10°C to 40°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C

Hobby Series

Sub-C	Sub-C	GP160SCKR	1.2	1600	1760	23	43	49	160	16	1600
	Sub-C	GP200SCKR	1.2	2000	2200	23	43	52	200	16	2000

Typical Ambient Temperature : Standard Charge : 0°C to 40°C, Fast Charge : 10°C to 40°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C
One hour rate with charge termination control. * After charging at 0.1C for 16 hours. ** With UL approval.

Major Applications

Cellular phones, cordless phones, transceivers, notebook computers, personal digital assistants (PDAs), portable facsimile machines, digital video cameras, LCD TVs, portable DVD / VCD / MD / CD players, emergency lightings, remote controls and security systems.



Industrial Series – Prismatic Type

Nickel Metal Hydride Series

Model No.	Nominal Voltage (V)	Capacity (0.2C discharge)*(mAh)		Nominal Dimension (mm)		Weight (g)	Standard Charge		1 Hr Charge Current (mA)#
		Minimum	Typical	Diameter	Height		Current (mA)	Time (hour)	
GP4M	1.2	400	440	6.1(T) x 17.0(W) x 31.3(H)	10	40	16	400	
GP5M60	1.2	550	600	6.1(T) x 17.0(W) x 35.3(H)	11	55	16	550	
GP6M	1.2	550	600	6.7(T) x 16.1(W) x 33.8(H)	11	55	16	550	
GP7MS	1.2	700	750	6.1(T) x 17.0(W) x 67.0(H)	17	70	16	700	
GP8M	1.2	800	850	6.1(T) x 17.0(W) x 48.0(H)	17	80	16	800	
GP14M**	1.2	1250	1400	6.1(T) x 17.0(W) x 67.0(H)	23	125	16	1250	
GP14M145**	1.2	1350	1450	6.1(T) x 17.0(W) x 67.0(H)	25	135	16	1350	

Typical Ambient Temperature : Standard Charge: 0°C to 45°C, Fast Charge : 10°C to 45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C
One hour rate with charge termination control. * After charging at 0.1C for 16 hours. ** With UL approval.

Industrial Series – Button Type

Nickel Metal Hydride Series

Model No.	Nominal Capacity at 5-hr rate (mAh)	Nominal Dimension (mm)		Weight (g)	Standard Charge		Nominal Voltage (V)	End Voltage (V)
		Diameter	Height		Current (mA)	Time (hour)		
High Capacity Series								
GP15BNH ^{2**}	15	9.5	2.6	0.7	1.5	16	1.5	1
GP20BNH ^{2**}	20	11.5	2.25	1.0	2	16	1.5	1
GP25BNH ²	25	11.6	3.5	1.4	2.5	16	1.5	1
GP40BVH ^{2**}	40	11.6	5.5	1.9	4	16	1.5	1
GP80BVH ^{1**}	80	15.5	6.3	3.7	8	16	1.5	1
GP150BVH ¹	120	15.5	7.8	4.8	12	16	1.5	1
GP250BVH ²	250	25	6.4	10.9	25	16	1.5	1
GP320BVH ¹	320	25	8.7	14.1	32	16	1.5	1
Standard Series								
GP60BVH ¹	60	15.5	6.3	3.6	6	16	1.5	1
GP170BVH ¹	170	25	6.4	9.8	17	16	1.5	1
GP280BVH ¹	280	25	8.7	12.6	28	16	1.5	1

Typical Ambient Temperature : ¹ Standard Charge, Discharge : 0°C to 45°C, Storage : -20°C to 45°C
² Standard Charge : 0°C to 65°C / Discharge : -20°C to 65°C, Storage : -40°C to 65°C

** With UL approval.

Major Applications

MBU, bridging, portable electronic devices, laptop computers, cordless phones, car alarms, torches, smoke detectors, security alarms.



Rechargeable Batteries

Consumer Series

Nickel Metal Hydride Series

Cell Size	Model No.	Nominal	Capacity (0.2C discharge)*(mAh)		Nominal Dimension (mm)		Weight (g)	Standard Charge		1 Hr Charge
High Capacity Series										
AAA	GP80AAHC**	1.2	780	800	10.5	44.5	14	80	16	800
	GP85AAHC	1.2	830	850	10.5	44.5	15	85	16	850
	GP95AAHC	1.2	900	920	10.5	44.5	15.2	90	16	900
AA	GP210AAHC**	1.2	2000	2050	14.5	50.5	28	200	16	2000
	GP230AAHC**	1.2	2200	2250	14.5	50.5	29.5	220	16	2200
	GP250AAHC	1.2	2400	2450	14.5	50.5	31	240	16	2400
C	GP350CHC	1.2	3480	3500	26.2	50	78.5	350	16	Not Applicable
	GP400CHC	1.2	3880	4000	26.2	50	82	400	16	Not Applicable
D	GP450DHC	1.2	4400	4500	34.2	61.5	130	450	16	Not Applicable
	GP700DHC	1.2	6800	7000	34.2	61.5	170	700	16	Not Applicable
	GP900DHC	1.2	8750	9000	34.2	61.5	173	900	16	Not Applicable

Standard Series

AAAA	GP30AAAAMC	1.2	280	300	7.9	42.5	6.2	30	16	300
AAA	GP60AAHC**	1.2	600	630	10.5	44.5	13	60	16	600
	GP65AAHC**	1.2	630	650	10.5	44.5	13	65	16	650
	GP70AAHC**	1.2	680	700	10.5	44.5	12.2	70	16	700
	GP75AAHC**	1.2	730	750	10.5	44.5	13	75	16	750
AA	GP60AAHC	1.2	580	600	14.5	50.5	16	60	16	600
	GP130AAHC**	1.2	1250	1300	14.5	50.5	26	130	16	1300
	GP150AAHC**	1.2	1450	1500	14.5	50.5	26	150	16	1500
	GP160AAHC**	1.2	1550	1600	14.5	50.5	26	160	16	1600
	GP170AAHC**	1.2	1650	1700	14.5	50.5	26	170	16	1700
	GP180AAHC**	1.2	1750	1800	14.5	50.5	26	180	16	1800
	GP200AAHC**	1.2	1900	1950	14.5	50.5	27	190	16	1900
	C	GP220CH	1.2	2150	2200	26.2	50	61	220	16
D	GP220DH	1.2	2150	2200	34.2	61.5	71	220	16	Not Applicable
9V	GP17R7H**	7.2	170	175	15.7(T) x 26.5(W) x 48.5(H)		28	17	16	170
	GP17R8H**	8.4	170	175	15.7(T) x 26.5(W) x 48.5(H)		32	17	16	170
	GP20R8H	8.4	200	210	15.7(T) x 26.5(W) x 48.5(H)		42.5	20	16	200

Prismatic Series

Prismatic	GP14M**	1.2	1250	1400	6.1(T) x 17.0(W) x 67.0(H)		23	125	16	1250
	GP14M145**	1.2	1350	1450	6.1(T) x 17.0(W) x 67.0(H)		25	135	16	1350

Typical Ambient Temperature : Standard Charge : 0°C to 40/45°C, Fast Charge : 10°C to 40/45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C
 # One hour rate with charge termination control. * After charging at 0.1C for 16 hours. ** With UL approval.

Major Applications

Digital cameras, personal digital assistants (PDAs), portable CD / MD / MP3 players, handheld TVs, palms, racing cars.

Nickel Cadmium Series

Cell Size	Model No.	Nominal	Capacity (0.2C discharge)*(mAh)		Nominal Dimension (mm)		Weight (g)	Standard Charge		1 Hr Charge
AAA	GP30AAAKC	1.2	300	320	10.5	44.5	10.5	30	16	300
	GP60AAKC	1.2	600	660	14.5	50.5	20	60	16	600
AA	GP70AAKC	1.2	700	770	14.5	50.5	22	70	16	700
	GP80AAKC	1.2	800	850	14.5	50.5	22	80	16	800
	GP100AAKC	1.2	1000	1030	14.5	50.5	26.5	100	16	1000
C	GP160CK	1.2	1600	1680	26.2	50	52	160	16	Not Applicable
	GP250CKC	1.2	2500	2750	26.2	50	72	250	16	Not Applicable
D	GP160DK	1.2	1600	1680	34.2	61.5	62	160	16	Not Applicable
	GP450DKC	1.2	4500	4950	34.2	61.5	135	450	16	Not Applicable
	GP500DKC	1.2	5000	5250	34.2	61.5	140	500	16	Not Applicable

Typical Ambient Temperature : Standard Charge : 0°C to 40/45°C, Fast Charge : 10°C to 40/45°C, Discharge : -20°C to 50°C, Storage : -20°C to 35°C
 # One hour rate with charge termination control.
 * After charging at 0.1C for 16 hours.
 ** With UL approval.

Major Applications

Cellular phones, cordless phones, emergency lightings, general purposes, portable electrical equipments, pagers, remote controls, security alarms, torches, toys and transceivers.

