



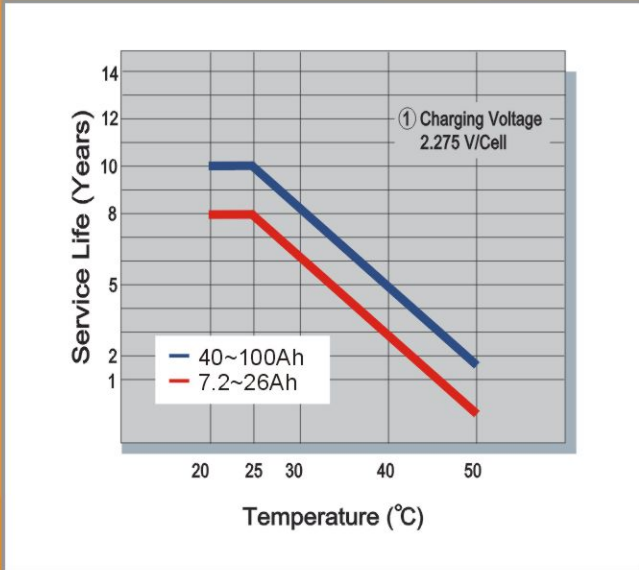
GPL series
General Purpose Long Life
Stability, Dependability and Reliability

ENERGY OF INFINITY ▼

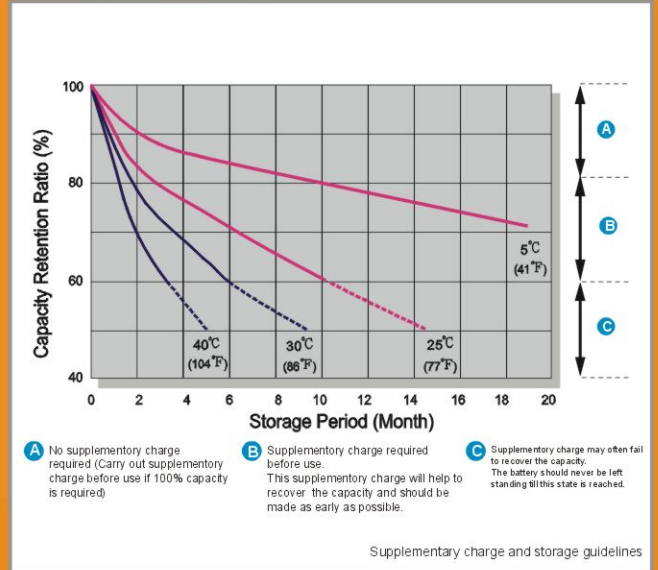
- Confidence & Creativity
- Service & Sincerity
- Belief & Bravery

GPL

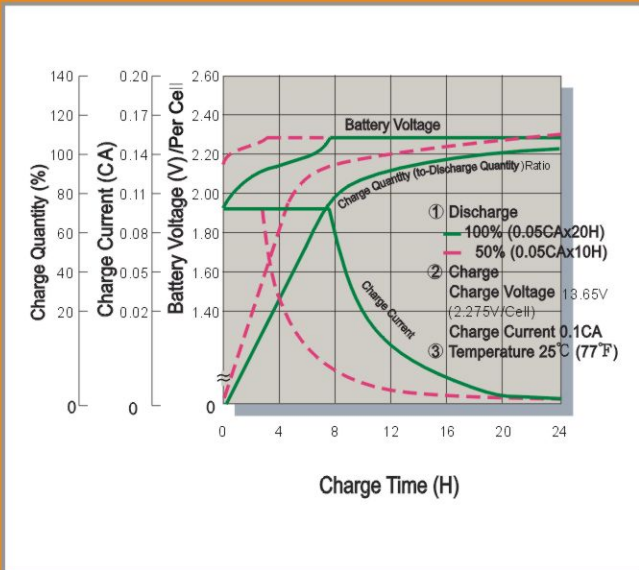
Trickle (or Float) Service Life



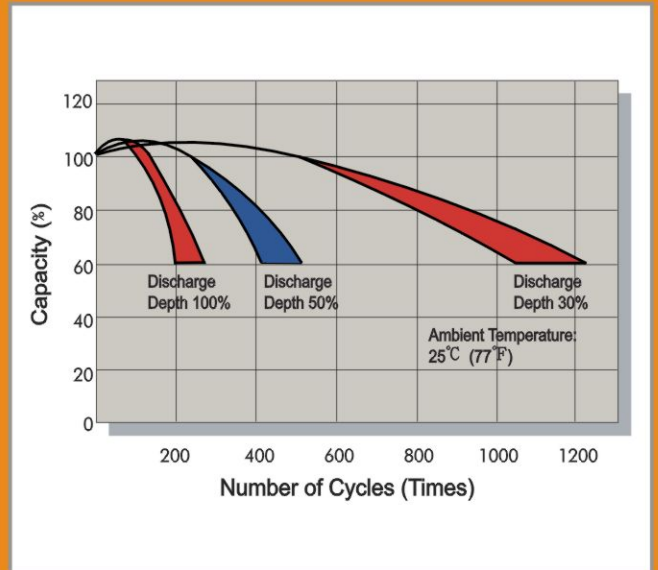
Capacity Retention Characteristic



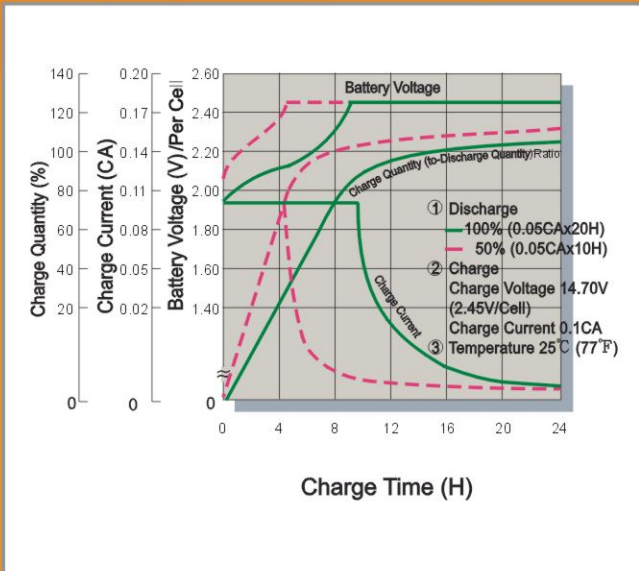
Battery Voltage and Charge Time for Standby Use



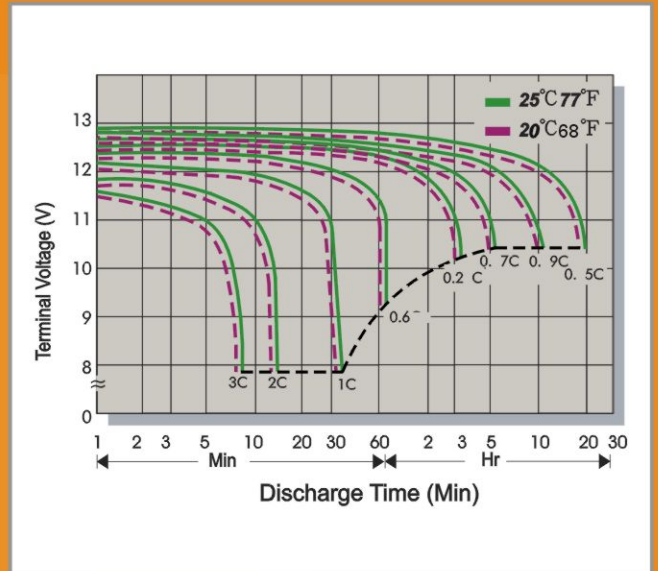
Cycle Service life



Battery Voltage and Charge Time for Cycle Use



Terminal Voltage (V) and Discharge Time



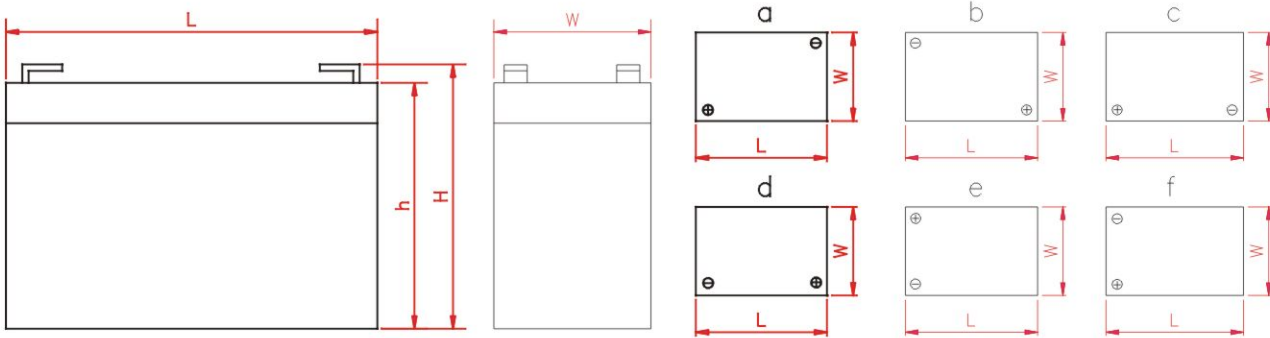
Specifications

Battery Type	Nominal Voltage(V)	Nominal Capacity (20hr)(Ah)	Weight (Approx. kg)	Energy Density (Wh/l)	Specific Energy (Wh/kg)	Internal Resistance Approx. (mΩ)	Max. Discharge Current 5 sec. (A)	Dimensions (mm)				Terminal Position	Terminal Type	Max. Charging Current (A)	Max. Screw Torque value	
								Overall Height (h)	Container Height (h)	Length (L)	Width (W)				kgf-cm/lbf-in	N-m
GPL672	6	7.2	1.37	89.5	31.53	13.50	100/130	100.7±1.5	94.5±1.0	151±2.0	34±1.0	c	F1/F2	2.16	---	---
GPL1272	12	7.2	2.60	93.6	33.23	21.00	100/130	100.5±1.5	94.3±1.0	151±2.0	65±1.0	e	F1/F2	2.16	---	---
GPL12120	12	12.0	4.10	103.5	35.12	14.00	150/180	100.3±1.5	94.1±1.0	151±2.0	98±1.0	e	F1/F2	3.60	---	---
GPL12260	12	26.0	8.30	88.0	37.59	11.00	350	125±1.5	---	166±2.0	175±2.0	d	B1/B3/B3B/11	7.80	58.5/50.8	5.73
GPL12400	12	40.0	14.50	87.6	33.10	10.00	400	170.4±2.0	---	197±2.0	165±2.0	d	B2	12.00	58.5/50.8	5.73
GPL12520	12	52.0	18.00	94.0	34.67	5.50	500	219.3±2.5	211.3±2.5	228±2.5	138.4±1.5	c	B4	15.60	138.5/120	13.58
GPL12750	12	75.0	25.60	96.9	35.16	4.50	800	213.9±2.5	210.5±2.5	261±2.5	168.5±2.0	c	I2	22.50	138.5/120	13.58
GPL12880	12	88.0	29.70	95.8	35.56	4.50	800	214.3±2.5	211.3±2.5	308.7±2.5	169±2.0	c	I2	26.40	138.5/120	13.58
GPL121000	12	100.0	33.50	95.9	35.82	3.50	800	217.3±2.5	213.9±2.5	343±2.5	170±2.0	c	I2	30.00	138.5/120	13.58

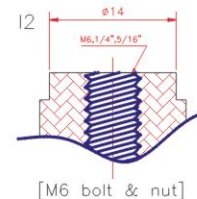
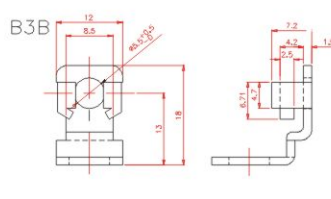
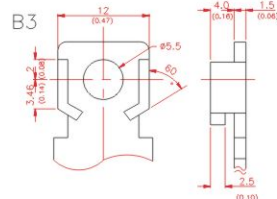
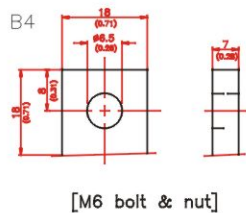
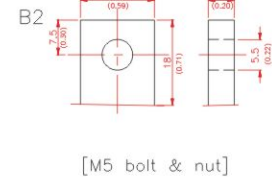
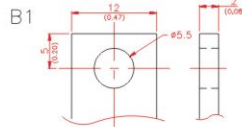
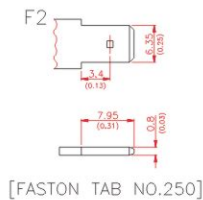
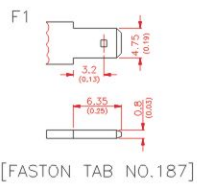
Charging(V) : • Standby Use : 2.275V±0.025V/CELL AT 25°C (77°F) Temp Coefficient -3.3mV/CELL°C

• Cycle Use : 2.45V±0.05V/CELL AT 25°C (77°F) Temp Coefficient -5mV/CELL°C

Terminal Position



Terminal Type



GPL672**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	24.1	19.2	15.6	9.05	4.88	2.67	1.93	1.53	1.29	0.901	0.739	0.375
1.67V	23.1	18.3	14.9	8.81	4.73	2.60	1.90	1.51	1.28	0.886	0.729	0.369
1.70V	22.6	17.8	14.5	8.68	4.65	2.57	1.87	1.50	1.27	0.879	0.725	0.367
1.75V	21.8	17.0	13.9	8.46	4.53	2.51	1.83	1.46	1.24	0.864	0.709	0.360
1.80V	20.8	16.2	13.2	8.19	4.39	2.46	1.78	1.42	1.21	0.849	0.693	0.352
1.85V	19.6	15.3	12.5	7.87	4.28	2.40	1.75	1.38	1.17	0.826	0.677	0.345

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	129	105	86.5	51.5	27.0	14.9	11.0	9.00	7.65	5.25	4.39	2.23
1.67V	126	101	82.9	50.4	26.7	14.6	10.9	8.90	7.51	5.18	4.32	2.20
1.70V	124	99.5	81.0	49.7	26.5	14.4	10.8	8.80	7.43	5.10	4.29	2.18
1.75V	120	95.9	78.0	48.7	26.2	14.1	10.6	8.65	7.27	5.05	4.23	2.14
1.80V	116	92.3	75.5	47.5	25.7	13.8	10.4	8.42	7.06	4.99	4.15	2.10
1.85V	111	88.7	73.1	46.1	25.3	13.6	10.2	8.22	6.92	4.86	4.07	2.06

GPL1272**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	24.1	19.2	15.6	9.05	4.88	2.67	1.93	1.53	1.29	0.901	0.739	0.375
1.67V	23.1	18.3	14.9	8.81	4.73	2.60	1.90	1.51	1.28	0.886	0.729	0.369
1.70V	22.6	17.8	14.5	8.68	4.65	2.57	1.87	1.50	1.27	0.879	0.725	0.367
1.75V	21.8	17.0	13.9	8.46	4.53	2.51	1.83	1.46	1.24	0.864	0.709	0.360
1.80V	20.8	16.2	13.2	8.19	4.39	2.46	1.78	1.42	1.21	0.849	0.693	0.352
1.85V	19.6	15.3	12.5	7.87	4.28	2.40	1.75	1.38	1.17	0.826	0.677	0.345

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	258	210	173	103	54.0	29.8	22.0	18.0	15.3	10.5	8.78	4.46
1.67V	251	202	166	101	53.3	29.1	21.8	17.8	15.0	10.4	8.64	4.40
1.70V	247	199	162	99.3	52.9	28.8	21.6	17.6	14.9	10.2	8.57	4.36
1.75V	240	192	156	97.4	52.3	28.2	21.2	17.3	14.5	10.1	8.45	4.28
1.80V	231	185	151	95.0	51.5	27.7	20.8	16.8	14.1	10.0	8.29	4.20
1.85V	222	177	146	92.2	50.6	27.2	20.4	16.4	13.8	9.73	8.14	4.12

GPL12120**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	45.7	32.1	23.1	13.5	7.43	4.00	2.84	2.22	1.84	1.25	1.03	0.612
1.67V	44.0	31.4	23.0	13.4	7.32	3.96	2.82	2.19	1.83	1.24	1.02	0.610
1.70V	42.8	30.8	22.6	13.2	7.27	3.94	2.80	2.18	1.82	1.23	1.01	0.608
1.75V	40.3	29.4	21.9	13.0	7.14	3.89	2.77	2.16	1.81	1.22	1.00	0.600
1.80V	37.6	27.5	20.7	12.6	6.93	3.81	2.70	2.12	1.78	1.21	0.979	0.593
1.85V	33.8	24.8	19.0	11.7	6.56	3.64	2.59	2.04	1.70	1.14	0.931	0.566

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	487	343	258	152	84.6	46.9	33.4	26.1	21.7	14.7	12.2	6.31
1.67V	475	339	255	151	84.5	46.6	33.2	26.0	21.6	14.6	12.1	6.25
1.70V	466	333	252	150	84.1	46.1	33.1	25.9	21.5	14.5	12.0	6.23
1.75V	443	322	246	149	83.5	46.0	32.9	25.7	21.4	14.4	11.8	6.19
1.80V	416	306	235	144	81.0	44.9	32.0	25.2	21.0	14.2	11.6	6.09
1.85V	380	280	217	135	77.0	43.0	30.7	24.2	20.4	13.7	11.2	5.86

GPL12260**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	108	73.2	53.3	31.5	19.0	11.1	7.99	6.25	5.21	3.44	2.84	1.49
1.67V	100	68.4	51.5	30.9	18.6	11.0	7.87	6.19	5.15	3.42	2.82	1.48
1.70V	96.3	65.9	49.8	30.3	18.4	10.9	7.83	6.18	5.14	3.40	2.80	1.47
1.75V	88.4	61.2	47.0	29.3	17.9	10.8	7.67	6.08	5.03	3.35	2.77	1.45
1.80V	79.0	56.0	44.1	27.9	17.3	10.5	7.53	5.88	4.92	3.26	2.67	1.42
1.85V	68.9	51.0	40.4	26.3	16.6	10.1	7.14	5.65	4.66	3.12	2.57	1.37

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	1090	787	593	360	219	133	95.4	74.8	62.0	41.8	33.8	17.8
1.67V	1034	736	577	355	214	131	94.6	74.3	61.6	41.5	33.6	17.7
1.70V	992	714	556	350	213	130	94.3	73.9	61.5	41.0	33.5	17.6
1.75V	965	695	527	338	210	129	92.2	72.7	60.6	40.5	33.4	17.5
1.80V	892	643	496	323	204	127	91.1	70.7	59.9	39.4	32.2	17.4
1.85V	780	588	461	309	200	123	86.2	68.7	56.2	37.4	31.0	16.9

GPL12400**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	162	104	78.2	47.7	28.1	16.3	11.6	9.04	7.37	4.83	3.94	2.03
1.67V	145	96.5	74.5	46.7	27.9	16.2	11.5	8.99	7.34	4.78	3.86	1.95
1.70V	137	92.8	72.4	46.1	27.8	16.1	11.4	8.97	7.33	4.76	3.83	1.91
1.75V	124	87.4	69.5	45.0	27.6	16.0	11.3	8.93	7.30	4.69	3.77	1.84
1.80V	111	81.3	65.9	43.8	27.4	15.9	11.2	8.90	7.26	4.63	3.71	1.78
1.85V	98.1	75.1	62.4	42.5	27.0	15.8	11.1	8.86	7.22	4.56	3.64	1.71

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	1,941	1,242	938	572	338	195	139	109	88.4	58.0	47.2	24.4
1.67V	1,735	1,158	895	558	335	194	138	108	88.1	57.3	46.4	23.3
1.70V	1,647	1,117	869	552	334	193	137	107	87.9	57.0	46.0	22.9
1.75V	1,490	1,049	830	539	331	192	136	106	87.5	56.3	45.2	22.1
1.80V	1,334	975	791	525	328	191	135	105	87.2	55.6	44.4	21.3
1.85V	1,178	902	749	510	324	190	134	104	86.7	54.8	43.7	20.6

GPL12520**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	233	149	112	64.9	36.8	21.0	15.0	11.7	9.90	6.66	5.42	2.91
1.67V	208	139	107	63.1	36.0	20.8	14.8	11.6	9.81	6.60	5.40	2.90
1.70V	197	134	104	62.0	35.7	20.6	14.7	11.5	9.76	6.58	5.37	2.89
1.75V	179	126	101	60.6	35.2	20.3	14.5	11.4	9.69	6.54	5.34	2.88
1.80V	161	118	96.8	59.2	34.7	20.1	14.3	11.3	9.62	6.50	5.31	2.87
1.85V	143	111	93.0	57.8	34.2	19.9	14.2	11.2	9.55	6.46	5.29	2.85

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	2,209	1,477	1,125	668	386	221	154	124	106	71.5	58.7	34.4
1.67V	2,012	1,381	1,058	654	380	219	153	123	105	71.4	58.4	34.3
1.70V	1,917	1,335	1,028	646	376	217	152	122	104	71.3	58.2	34.2
1.75V	1,767	1,252	986	632	372	214	151	121	103	70.9	58.0	33.7
1.80V	1,619	1,169	944	615	368	212	150	120	102	70.4	57.9	33.3
1.85V	1,459	1,088	904	598	363	209	149	119	101	69.9	57.7	33.0

GPL12750**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	298	198	149	87.5	53.5	30.9	21.9	17.3	14.5	9.52	7.85	4.16
1.67V	274	191	146	86.7	53.2	30.7	21.7	17.2	14.4	9.41	7.78	4.13
1.70V	265	187	144	86.1	52.4	30.5	21.5	17.1	14.3	9.34	7.76	4.12
1.75V	234	170	139	84.4	51.4	29.9	21.4	16.9	14.1	9.32	7.64	4.04
1.80V	210	158	131	81.9	50.2	29.5	21.0	16.7	13.8	9.17	7.55	3.98
1.85V	183	145	118	77.0	47.5	28.1	20.3	16.0	13.5	8.88	7.26	3.82

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	3,013	2,127	1,654	1,003	614	370	261	207	173	116	93.5	49.7
1.67V	2,818	2,060	1,635	996	612	365	260	206	172	115	92.9	49.4
1.70V	2,729	2,022	1,609	994	610	363	259	205	171	114	92.7	49.3
1.75V	2,553	1,927	1,558	976	603	361	257	203	170	113	92.3	49.0
1.80V	2,371	1,815	1,478	949	592	356	254	201	168	111	91.0	48.7
1.85V	2,075	1,667	1,348	904	572	341	245	195	162	107	87.5	47.1

GPL12880**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	349	232	175	103	62.8	36.3	25.6	20.3	17.0	11.2	9.21	4.88
1.67V	321	225	171	102	62.4	36.0	25.5	20.2	16.9	11.1	9.13	4.85
1.70V	311	219	169	101	61.4	35.7	25.2	20.1	16.8	11.0	9.11	4.83
1.75V	274	199	163	99.0	60.3	35.1	25.1	19.9	16.6	10.9	8.96	4.74
1.80V	246	186	154	96.1	58.8	34.6	24.6	19.7	16.2	10.8	8.86	4.67
1.85V	215	170	138	90.3	55.8	32.9	23.8	18.8	15.8	10.4	8.52	4.49

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	3,535	2,496	1,941	1,177	720	434	306	243	203	136	110	58.3
1.67V	3,307	2,417	1,919	1,169	719	428	305	242	202	135	109	57.9
1.70V	3,202	2,373	1,888	1,166	716	426	304	240	201	134	108	57.8
1.75V	2,995	2,261	1,828	1,145	707	424	301	238	200	132	107	57.5
1.80V	2,782	2,129	1,734	1,113	694	418	298	236	198	130	106	57.1
1.85V	2,434	1,955	1,581	1,061	671	400	287	229	190	125	103	55.3

GPL121000**Constant Current Discharge Characteristics Unit:Amperes(25°C, 77°F)**

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	423	277	212	127	73.0	41.1	29.1	22.8	18.9	12.2	10.0	5.28
1.67V	375	266	207	125	72.4	40.7	29.0	22.7	18.8	12.1	9.93	5.23
1.70V	355	258	203	124	71.8	40.6	28.7	22.6	18.6	12.0	9.89	5.21
1.75V	317	240	194	120	71.1	40.2	28.6	22.4	18.5	11.9	9.82	5.19
1.80V	283	219	183	115	68.9	39.3	27.9	22.0	18.2	11.8	9.66	5.10
1.85V	245	196	164	106	65.2	37.6	26.8	21.2	17.4	11.4	9.45	4.92

Constant Power Discharge Characteristics Unit:Watts(25°C, 77°F)

F.V/Time	5MIN	10MIN	15MIN	30MIN	1HR	2HR	3HR	4HR	5HR	8HR	10HR	20HR
1.60V	4,159	2,950	2,331	1,436	849	482	342	269	223	153	125	63.5
1.67V	4,008	2,837	2,273	1,417	843	480	340	268	222	152	124	63.3
1.70V	3,863	2,772	2,252	1,404	840	478	339	266	221	151	123	63.2
1.75V	3,572	2,623	2,181	1,372	830	475	337	265	220	150	122	62.4
1.80V	3,184	2,442	2,049	1,316	809	465	331	261	217	148	121	61.4
1.85V	2,769	2,227	1,856	1,234	767	444	320	252	210	142	117	60.0

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