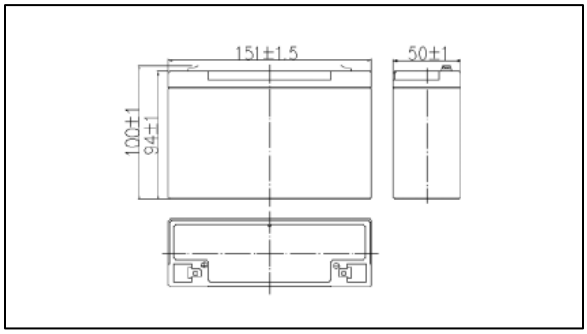
R&D Batteries, Inc.

5380-F2

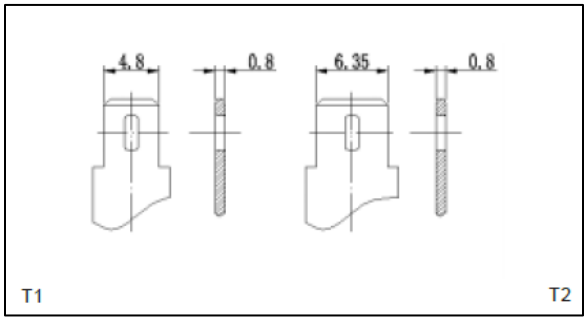
Specifications

Nominal Voltage	6V
Rated Capacity (20-hour rate)	12Ah
Dimensions	
Length	151±1.5mm (5.94inch)
Width	50±1mm (1.97inch)
Height	94±1mm (3.70inch)
Total Height	100±1mm (3.94inch)
Approximate Weight	1.7kg (lbs)±4%

Outer Dimensions



Terminal Type



Characteristics

Capacity (25°C)	
20HR (3.50V)	12Ah
10HR (3.50V)	11Ah
1HR (3.20V)	7.2Ah
Terminal Type	F2
Internal Resistance	Approx. 10m Ω
Capacity affected by temperature (20HR)	
40°C	102%
25°C	100%
0°C	85%
-15°C	65%
Self-Discharge (25°C)	
3 months	Remaining Capacity: 91%
6 months	Remaining Capacity: 82%
12 months	Remaining Capacity: 65%
Nominal operating temperature	25°C±3°C (77°F±5°F)
Operating Temperature range	
Discharge	-15°C~50°C (5°F~122°F)
Charge	-10°C~50°C (14°F~122°F)
Storage	-20°C~50°C (-4°F~122°F)
Float charging voltage (25°C)	6.80 to 6.90V Temperature compensation: -9mV/°C
Cyclic charging voltage (25°C)	7.25 to 7.50V Temperature compensation: -15mV/°C
Maximum charging current	3.6A
Maximum discharge current	180A (5 sec.)
Designed Floating Life (20°C)	5 years

Construction

Component	Positive Plate	Negative Plate	Container	Cover	Separator	Electrolyte	Safety Valve	Terminal
Raw Material	Lead Dioxide	Lead	ABS	ABS	AGM	Sulfuric Acid	Rubber	Copper

Constant Current Discharge Characteristics

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
4.80V	45.8	29.0	22.7	12.8	7.86	4.30	2.97	2.46	2.09	1.14	0.61
4.95V	44.5	28.2	22.1	12.5	7.74	4.27	2.96	2.45	2.08	1.13	0.61
5.10V	42.6	27.0	21.3	12.1	7.55	4.24	2.94	2.43	2.07	1.13	0.61
5.25V	40.8	25.8	20.6	11.8	7.40	4.17	2.92	2.41	2.05	1.12	0.60
5.40V	38.5	24.4	19.5	11.4	7.17	4.07	2.83	2.34	1.99	1.10	0.59

Constant Power Discharge Characteristics

F.V/Time	5min	10min	15min	30min	60min	2h	3h	4h	5h	10h	20h
4.80V	256	164	129	73.2	45.5	25.2	17.7	14.7	12.5	6.82	3.65
4.95V	248	159	126	71.8	44.8	25.0	17.6	14.6	12.4	6.79	3.64
5.10V	238	152	122	69.6	43.7	24.8	17.4	14.5	12.3	6.76	3.62
5.25V	228	146	117	67.9	42.8	24.4	17.3	14.4	12.3	6.72	3.60
5.40V	215	138	111	65.4	41.5	23.8	16.8	13.9	11.9	6.58	3.53

*Note: The above characteristics data can be obtained within three charge or discharge cycles.

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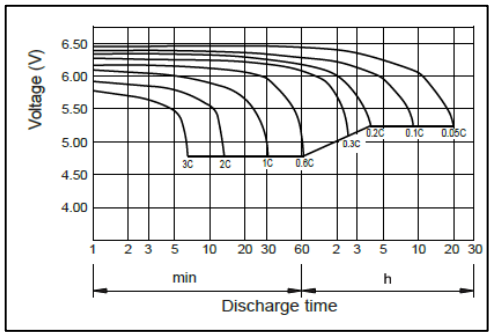
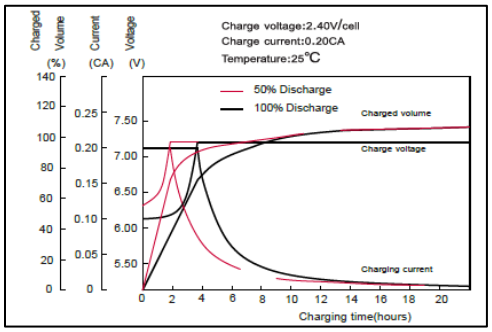
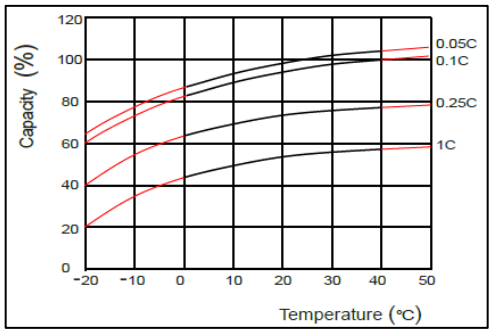
Discharge Characteristics



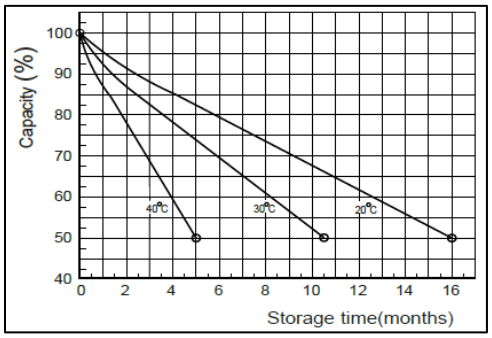
Charging Characteristics



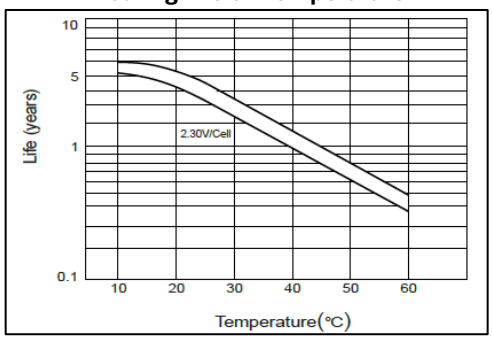
Effect of Temperature on Capacity



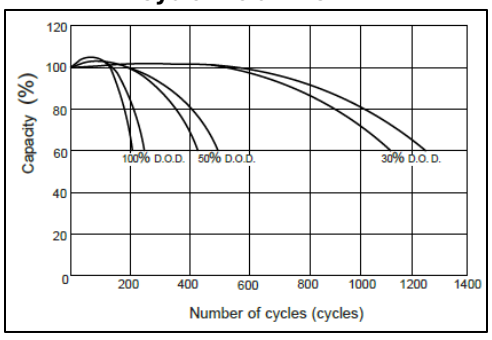
Self-discharge Characteristics



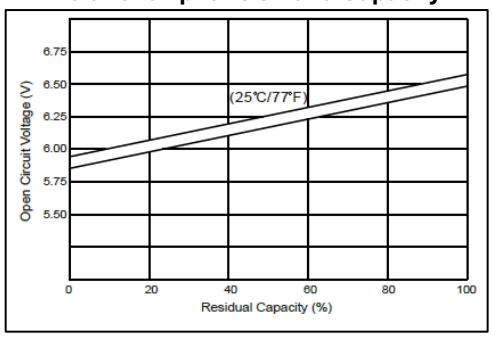
Floating Life on Temperature



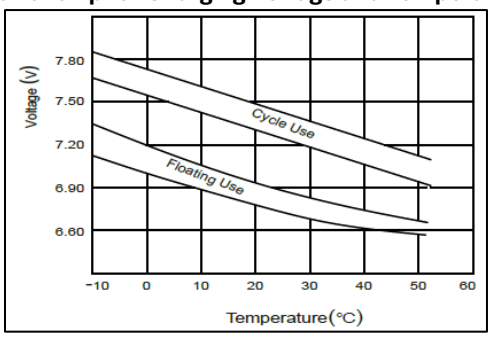
Cycle Life on D.O.D



Relationship for OCV and Capacity



Relationship for Charging Voltage and Temperature



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Quality Management ISO 13485 DEKRA certified