



Diode:
 MBRD835LG/DPAK
 8A, 35V
 Forward Voltage 0.45V @ 10A @ 25C
 Forward Voltage 0.36V @ 2A @ 25C
 Reverse current 20uA @3V @ 25V

Discharge by diode:
 $20\mu A * 24H * 365 \text{ days} / 30 \text{ AH} = 0.6\% \text{ per year}$

Battery option 1:
 Chemistry: Lithium / Sulfuryl Chloride
 Model CSC93
 Part number: 3B0036-XB
 Termination: solder tabs
 Shunt diode: 8A
 Fuse: 7A fuse
 Open circuit voltage: 3.9V
 Cut-off voltage: 2V
 Rated current: 1.0A
 Rated Capacity: 30AH
 Maximum Continuous current: 4A

Battery option 2:
 Chemistry: LITHIUM BROMINE CHLORIDE
 Model: BCX85
 Part number: 3B0076-XB
 Termination: solder tabs
 Shunt diode:
 Fuse: 4A fuse
 Open circuit voltage: 3.9V
 Cut-off voltage: 2V
 Rated current: 0.35A
 Rated Capacity: 30AH
 Maximum Continuous current: 3A

Fuse, battery option 1:
 7A fuse, Little Fuse 429-007, fast acting, 1206 size

Fuse, battery option 2:
 4A fuse, Little Fuse 466-004, fast acting, 1206 size

Assembly notes:
 1. Use cells with the same chemistry and part number
 2. Use cells with the same batch number and charge state
 3. Solder to the solder tabs only
 4. Do not force cells into housing. This could deform the cell causing an internal short circuit or fracturing glass-to-metal seal

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