BA 5590
Lithium/Sulfur Dioxide Primary Battery System

Physical Specifications:
- Typical Weight: 2.25 lbs; 1000 gr.
- Weight of Li: 24 gr.
- Dimensions: Figure A (on back)
- Battery Case: Plastic

Typical Applications:
- AN/PRC-104 Radio
- AN/PRC-113 Radio
- AN/PRC-117 Radio
- AN/PRC-119 Singcars Radio
- KY-57, KY-65 Encryption Set
- REMBASS Remotely Monitored Battlefield Surveillance System
- PLRS Position Locator and Reporting System
- RT-991 Buoy Radio
- RT-1175 Buoy Radio
- AN/TAS-4A TOW Night Sight

Electrical Characteristics:
- Construction: 10 LO 26 SX cells connected in 2 groups of 5 cells in series providing 2 nominal 12-volt sections at connector. These sections can be connected in series (for 24 volts) in parallel (for 12 volts) or used as two separate 12-volt units
- Voltage:
  - Typical OCV: 15.0 or 30.0 volts
  - Nominal (@500 ma): 13.5 or 27.0 volts
  - Cut-off: 10.0 or 20.0 volts
- Typical Capacity:
  - @70°F (21°C):
    - 12 volts mode 15 Ah / 24 volts mode 7.5 Ah
- Operating Temperature:
  - -40°F to 160°F [-40°C to 71°C]
- Storage:
  - Recommended max 95°F (35°C) / Possible -40°F to 160°F [-40°C to 71°C]
- Fuse:
  - Non-replaceable, electrical fuse is incorporated in the negative leg of each series group of cells.
- High Temperature Switch:
  - A normally closed high temperature switch or thermal fuse is incorporated into each series leg of cells to protect against overheating
- Diode:
  - A diode is incorporated into the positive leg of each series group of cells to prevent charging or flow of current into the battery
- Pull tab CDD (optional):
  - A device consisting of a manually activated pull tab and resistors designed to discharge the battery to 0 volts is built into the battery
- Mating Connector:
  - ITT Cannon CA 110821-6
- Reference Specifications:
  - MIL PRF 49471B or Saft Standard Specification

The BA 5590 is a commonly used battery for various military applications.
Figure 1: BA5590 - Capacity vs Rate at Various Temperatures

-40C
-30C
0C
21C
54C

Discharge Rate (Amps)

Figure 2: BA5590(24V Mode) - 2 Amp Discharge Typical Curves at Various Temperatures

54C
21C
0C
-30C
-40C

Discharge Capacity (Ah)

Figure 3: BA5590 - Typical Discharge Curves at Various Rates at 21°C

0.25A
0.5A
1A
2A

Discharge Capacity (Ah)

*Note: All measurements are in inches

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