

INCH-POUND

MIL-PRF-32052/5(CR)

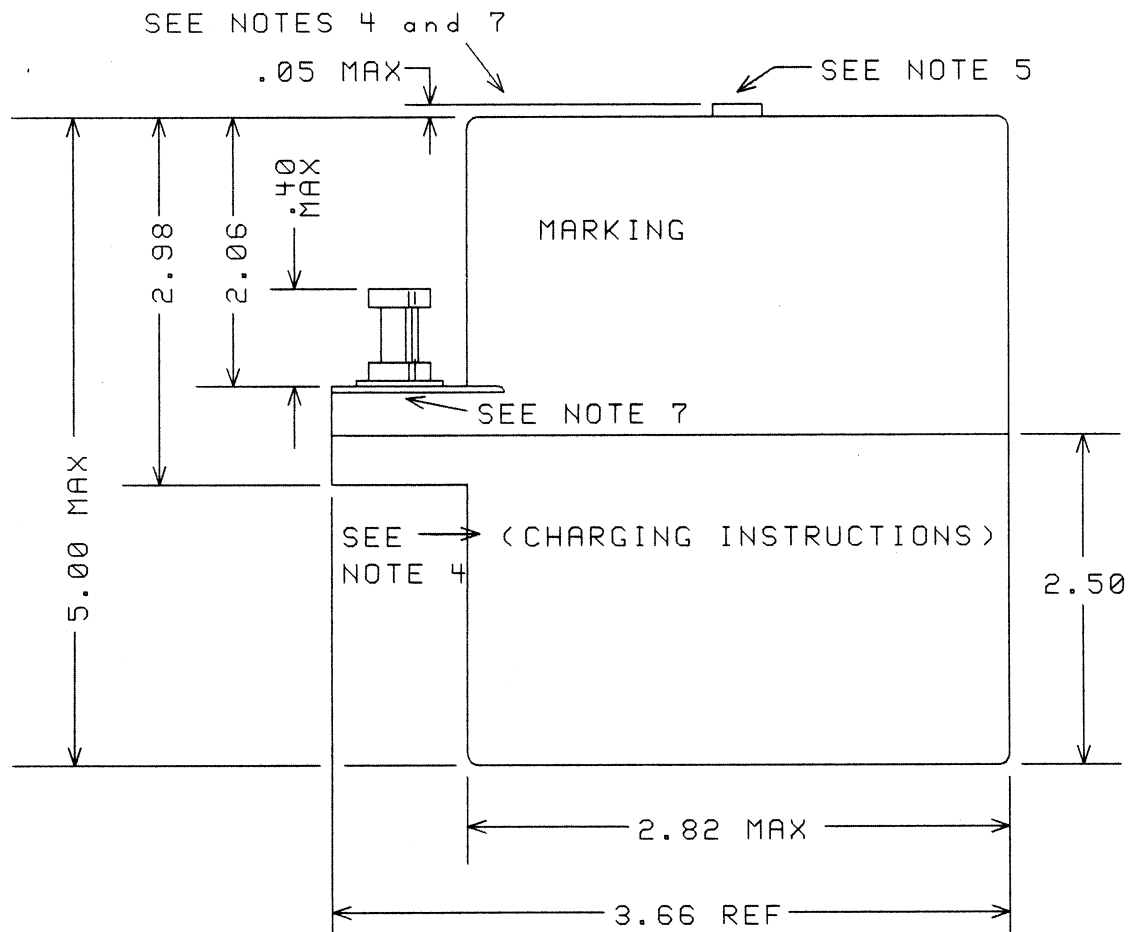
7 December 1999

PERFORMANCE SPECIFICATION SHEET

BATTERY, RECHARGEABLE, SEALED NICKEL CADMIUM, BB-503/TAS

This specification sheet is approved for use by the U. S. Army CECOM, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-PRF-32052.



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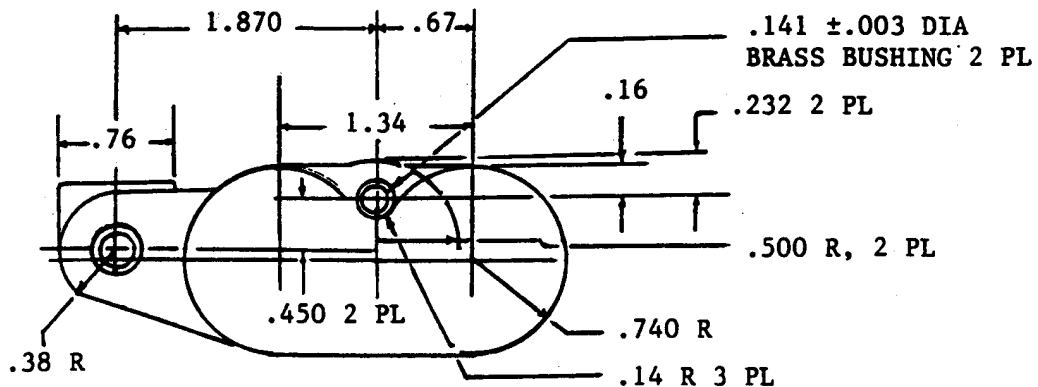


FIGURE 2. TOP FACE

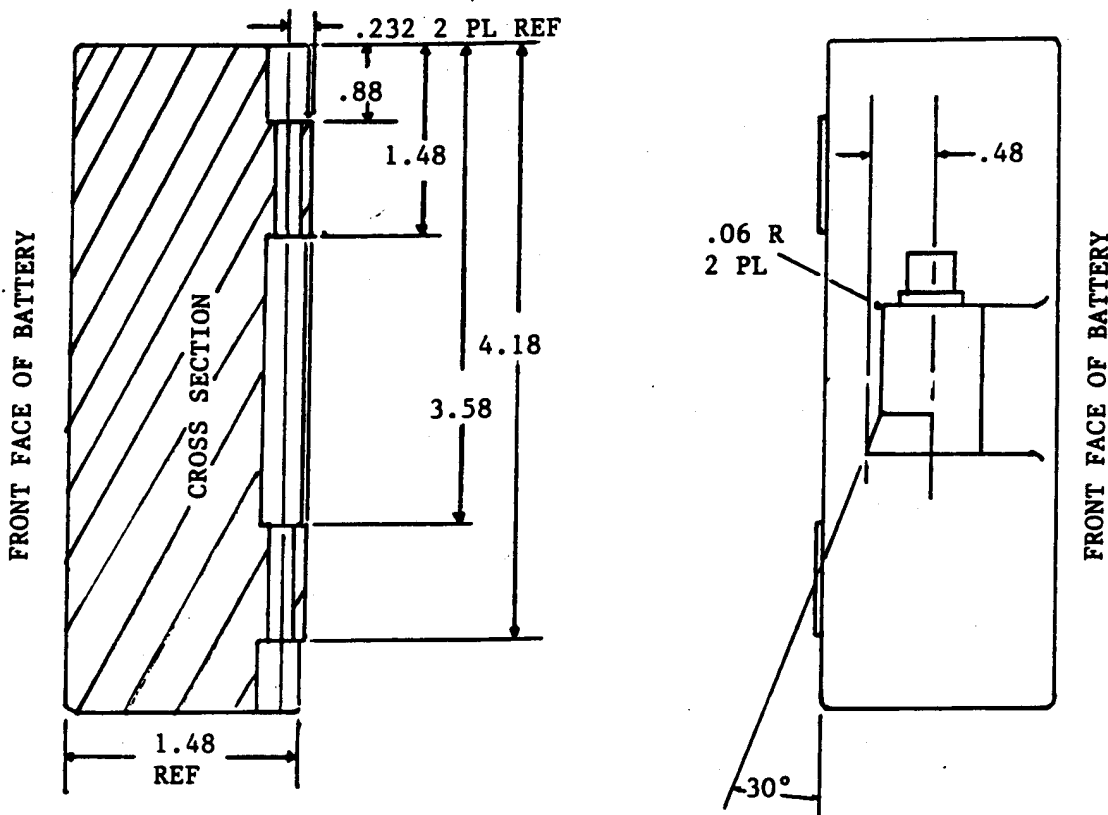


FIGURE 3. SIDE FACE OF BATTERY

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DRAWING NOTES

1. All dimensions are in inches.
2. Tolerances on decimals: ± 0.02 inch for two places
 ± 0.10 inch for three places.
3. Tolerances on angles: $\pm 1^\circ$.
4. Stencil (or equivalent) schematic, identification and charging instructions as shown. Color marking black.
5. Preferred area for pressure relief valve. It shall release gas before case damage is incurred. It shall not permit the entry of liquid into the battery case.
6. Push-on coaxial plug connector, dimensionally equivalent to part number SM-C-804749. Center pin is positive, connector body is negative.
7. Manufacturer must fill in applicable information in parenthesis.
8. State of charge indicator shall be on the top face of the battery. State of charge interpretation shall be clearly marked on the battery.

REQUIREMENTS:

Rated capacity : 4.0 AH.

Voltage (Nominal): 4.8 volts.

Weight (Maximum): 0.77 Kg (1.7 lbs.).

Connector: Push-on coaxial plug connector, dimensionally equivalent to SM-C-804749.

All connectors, including socket terminal and charging connector, if required, shall retain full function after 500 insertions and withdrawals.

Charge rate for testing and on battery (C/2 for 2-3 hrs): 2.0 amp.

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| <u>Discharge Rates</u> | <u>5 Second Voltage(V)</u> | <u>Final Voltage(V)</u> | <u>Current (Amps)</u> |
|------------------------|----------------------------|-------------------------|-----------------------|
| C/5 | - | 4.0 | 0.80 |
| 0.4 C ₅ | - | 4.0 | 1.60 |

| <u>Test</u> | <u>Discharge Current</u> | <u>Capacity Requirement (AH)</u> |
|---|--------------------------|----------------------------------|
| Full Capacity Discharge | 1.60 amps | 4.0 |
| Cycle Life, 112 cycles | 1.60 amps | 3.8 |
| Overcharge, 24 hours | 1.60 amps | 4.0 |
| High Rate Discharge | Not applicable | - |
| Low Temperature Discharge at -21°C (-5°F) | 1.60 amps | 3.2 |
| Retention of Charge 7 days at 50° C (122°F) | 1.60 amps | 2.4 |
| Pulse Discharge | Not applicable | - |
| Vibration | 0.8 amps | 4.0 |

Mounting screws for connector: Not applicable.

Terminal markings: Not applicable.

Electrical leakage: Not applicable.

Cycle life test: Except that the electrical leakage portion is not applicable. For cycles 2-26: Charge at C/2 or higher for 2 hours or per 4.7.1.2, discharge at C₅ for 60% of initial full discharge capacity. Allow 5 minutes between charge and discharge.

CONCLUDING MATERIAL

Custodian:
Army - CR

Preparing Activity:
Army - CR

(Project 6140-A913-05)