

## 15.2 Battery Characteristics

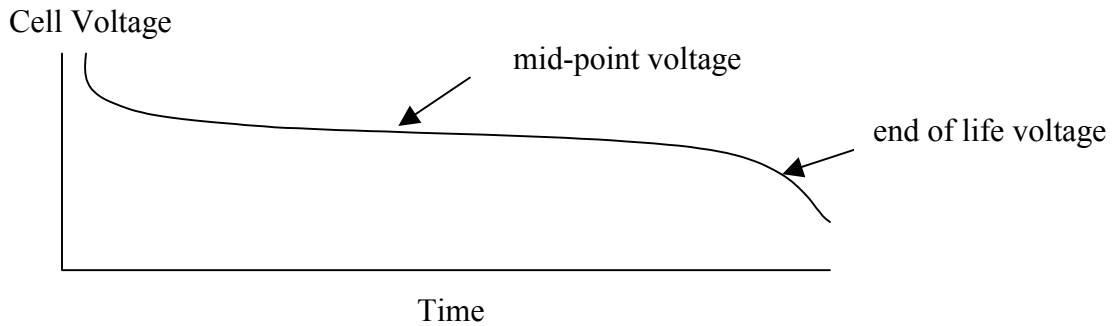


Figure 15.5 Example Battery Discharge Curve

Table 15.2 Characteristics for Various Types of Batteries

| Type         | Voltage (OC) | Type      | Typical Ah Capacity         | R internal ( $\Omega$ ) |
|--------------|--------------|-----------|-----------------------------|-------------------------|
| 9V alkaline  | 9 V          | primary   | 0.60 @ 25 mA                | 2                       |
| 9V lithium   | 9 V          | primary   | 1.0 @ 25 mA<br>0.95 @ 80 mA | 18                      |
| alkaline D   | 1.5 V        | primary   | 17.1 @ 25 mA                | 0.1                     |
| alkaline C   | 1.5 V        | primary   | 7.9 @ 25 mA                 | 0.2                     |
| alkaline AA  | 1.5 V        | primary   | 2.7 @ 25 mA                 | 0.4                     |
| alkaline AAA | 1.5 V        | primary   | 1.2 @ 25 mA                 | 0.6                     |
| Ni-Cd D      | 1.3 V        | secondary | 4.0 @ 800 mA<br>3.5 @ 4 A   | 0.009                   |
| Ni-MH AAA    | 1.2 V        | secondary | 0.55 @ 200 mA               | ?                       |
| Ni-MH AA     | 1.2 V        | secondary | 1.3 @ 200 mA                | ?                       |
| Ni-MH C      | 1.2 V        | secondary | 3.5 @ 200 mA                | ?                       |
| Ni-MH D      | 1.2 V        | secondary | 7.0 @ 200 mA                | ?                       |
| Ni-MH 9V     | 8.4 V        | secondary | 0.13 @ 200 mA               | ?                       |
| Lithium Ion  | 3.7 V        | secondary | 0.76 @ 200 mA               | ?                       |