

FZA 1.2-4



Physical Specification

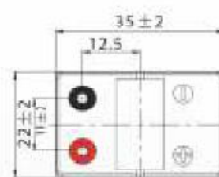
| | |
|-------------------------------|---------------------------------|
| Part Number: | FZA 1.2-4 |
| Length: | 35 ± 2 mm (1.38 inches) |
| Width: | 22 ± 2 mm (0.87 inches) |
| Container Height: | 92 ± 2 mm (3.62 inches) |
| Total Height (with terminal): | 100 ± 2 mm (3.94 inches) |
| Approx Weight: | Approx 0.15kg (0.33lbs) |

Specifications

| | | |
|------------------------------|----------------------------------|---|
| | Normal Voltage | 4V |
| | Normal Capacity (20HR) | 1.2AH |
| Terminal Type | Standard Terminal | \ |
| | Optional Terminal | - |
| Container Material | Standard Option | ABS |
| | Flame Retardant Option (FR) | UL94:VO |
| Rated Capacity | 1.20 AH/0.600A | (20hr, 1.80V/cell, 25°C / 77°F) |
| | 1.12 AH/0.112A | (10hr, 1.80V/cell, 25°C / 77°F) |
| | 1.02 AH/0.204A | (5hr, 1.75V/cell, 25°C / 77°F) |
| | 0.918 AH/0.306A | (3hr, 1.75V/cell, 25°C / 77°F) |
| | 0.754 AH/0.754A | (1hr, 1.60V/cell, 25°C / 77°F) |
| Max Discharge Current | 18A (5s) | |
| Internal Resistance | Approx 60mΩ | |
| Discharge Characteristics | Operating Temp. Range | Discharge: -15 ~ 50°C (5 ~ 122°F) Charge: 0 ~ 40°C (5 ~ 104°F) Storage: -15 ~ 40°C (5 ~ 104°F) |
| | Nominal Operating Temp. Range | 25 ± 3°C (77 ± 5°F) |
| | Cycle Use | Initial Charging Current less than 0.36A. Voltage 4.8V ~ 5.0V at 25°C (77°F) Temp. Coefficient -10mV/°C |
| | Standby Use | No limit on Initial Charging Current Voltage 4.5V ~ 4.6V at 25°C (77°F) Temp. Coefficient -6mV/°C |
| | Capacity affected by Temperature | 40°C (104°F) 103% 25°C (77°F) 100% 0°C (32°F) 86% |
| Design Floating Life at 20°C | 5 Years | |

Dimensions

Terminal



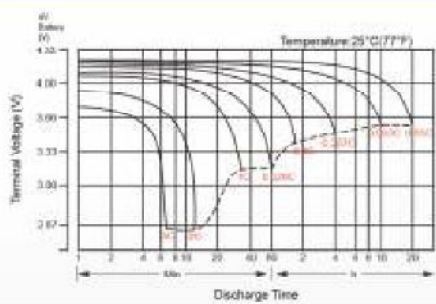
Constant Current Discharge (Amperes) at 20°C

| F.V/Time | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.85V/cell | 2.29 | 1.75 | 1.45 | 1.26 | 0.97 | 0.716 | 0.603 | 0.357 | 0.279 | 0.227 | 0.185 | 0.161 | 0.130 | 0.108 | 0.059 |
| 1.80V/cell | 3.07 | 2.24 | 1.76 | 1.49 | 1.15 | 0.833 | 0.676 | 0.390 | 0.300 | 0.242 | 0.199 | 0.172 | 0.137 | 0.112 | 0.060 |
| 1.75V/cell | 3.46 | 2.46 | 1.92 | 1.60 | 1.19 | 0.864 | 0.707 | 0.404 | 0.306 | 0.248 | 0.204 | 0.177 | 0.140 | 0.115 | 0.061 |
| 1.70V/cell | 3.81 | 2.69 | 2.05 | 1.66 | 1.24 | 0.889 | 0.729 | 0.414 | 0.315 | 0.254 | 0.209 | 0.181 | 0.142 | 0.117 | 0.062 |
| 1.65V/cell | 4.20 | 2.90 | 2.18 | 1.76 | 1.31 | 0.921 | 0.748 | 0.420 | 0.328 | 0.263 | 0.215 | 0.185 | 0.144 | 0.119 | 0.062 |
| 1.60V/cell | 4.63 | 3.15 | 2.33 | 1.90 | 1.38 | 0.960 | 0.754 | 0.436 | 0.338 | 0.271 | 0.222 | 0.189 | 0.145 | 0.121 | 0.063 |

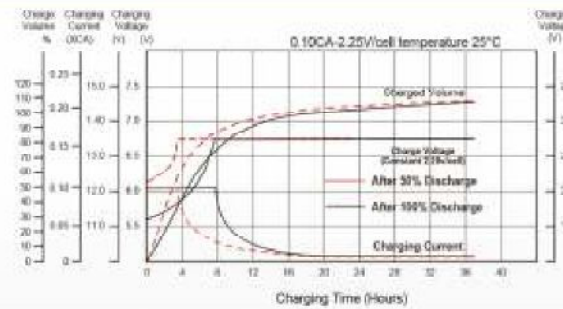
Constant Power Discharge (Watts) at 20°C

| F.V/Time | 5 min | 10 min | 15 min | 20 min | 30 min | 45 min | 1h | 2h | 3h | 4h | 5h | 6h | 8h | 10h | 20h |
|------------|-------|--------|--------|--------|--------|--------|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1.85V/cell | 4.18 | 3.24 | 2.71 | 2.37 | 1.85 | 1.38 | 1.16 | 0.693 | 0.544 | 0.444 | 0.363 | 0.316 | 0.256 | 0.214 | 0.116 |
| 1.80V/cell | 5.56 | 4.09 | 3.23 | 2.76 | 2.15 | 1.59 | 1.30 | 0.751 | 0.582 | 0.471 | 0.388 | 0.337 | 0.271 | 0.221 | 0.110 |
| 1.75V/cell | 6.12 | 4.43 | 3.49 | 2.94 | 2.22 | 1.63 | 1.35 | 0.776 | 0.591 | 0.480 | 0.397 | 0.346 | 0.275 | 0.226 | 0.120 |
| 1.70V/cell | 6.56 | 4.71 | 3.67 | 3.07 | 2.29 | 1.69 | 1.39 | 0.794 | 0.606 | 0.492 | 0.406 | 0.352 | 0.278 | 0.231 | 0.122 |
| 1.65V/cell | 7.13 | 5.04 | 3.87 | 3.23 | 2.40 | 1.72 | 1.41 | 0.801 | 0.629 | 0.507 | 0.416 | 0.359 | 0.282 | 0.235 | 0.123 |
| 1.60V/cell | 7.98 | 5.35 | 4.08 | 3.41 | 2.52 | 1.78 | 1.42 | 0.831 | 0.645 | 0.521 | 0.428 | 0.365 | 0.284 | 0.237 | 0.124 |

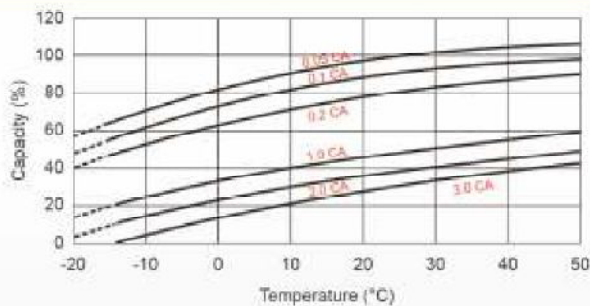
Discharge Characteristics



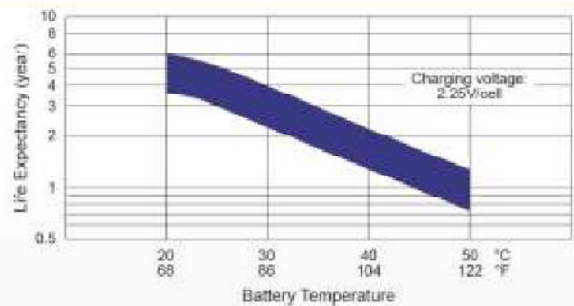
Float Charging Characteristics



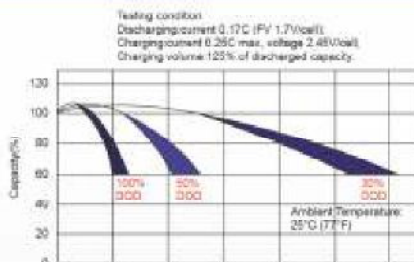
Temperature Effects in Relation to Battery Capacity



Effect of Temperature on Long Term Float Life



Cycle Life in Relation to Depth of Discharge



Self Discharge Characteristics

