

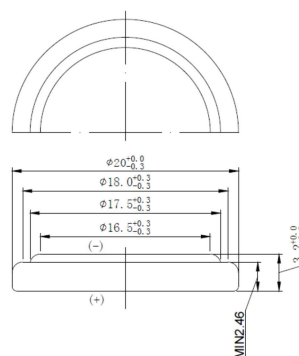
**RATINGS OF MANGANESE DIOXIDE LITHIUM BATTERY**
**(TYPE: CR2032)**

|                                   |                                        |                                                                               |
|-----------------------------------|----------------------------------------|-------------------------------------------------------------------------------|
| <i>CLASSIFICATION</i>             |                                        | <i>MANGANESE DIOXIDE LITHIUM PRIMARY BATTERY</i>                              |
| <i>BATTERY SYSTEM</i>             |                                        | <i>COIN TYPE MANGANESE DIOXIDE LITHIUM BATTERY</i>                            |
| <i>BATTERY TYPE</i>               |                                        | CR2032                                                                        |
| <i>NOMINAL VOLTAGE</i>            |                                        | 3.0V                                                                          |
| <i>NOMINAL CAPACITY</i>           |                                        | 220mAh<br>(ON CONTINUOUS DISCHARGE UNDER 15K $\Omega$ load to 2.0V end-point) |
| <i>STANDARD DISCHARGE CURRENT</i> |                                        | 0.2mA                                                                         |
| <i>MASS</i>                       |                                        | APPROX. 3.2g                                                                  |
| <i>TERMINALS</i>                  | <i>CAP TERMINAL<br/>CASE TERMINAL</i>  | SUS430+Ni-plated<br>SUS430+Ni-plated                                          |
| <i>OUTER DIMENSIONS</i>           | <i>DIAMETER<br/>OVERALL<br/>HEIGHT</i> | $\phi 20.0(+0/-0.3)mm$<br>$3.2(+0/-0.3)mm$                                    |
| <i>USABLE TEMPERATURE RANGE</i>   |                                        | -20 °C ~ +70 °C                                                               |
| <i>STORAGE TEMPERATURE RANGE</i>  |                                        | 0 °C ~ 30 °C                                                                  |
| <i>STORAGE HUMIDITY RANGE</i>     |                                        | 40% ~ 75%                                                                     |

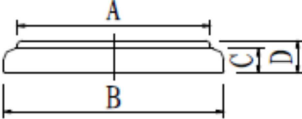
**The Appearance Of CR2032**

**The Dimensions Of CR2032**

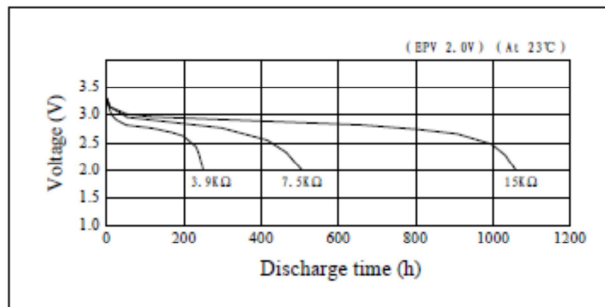
Fig.1



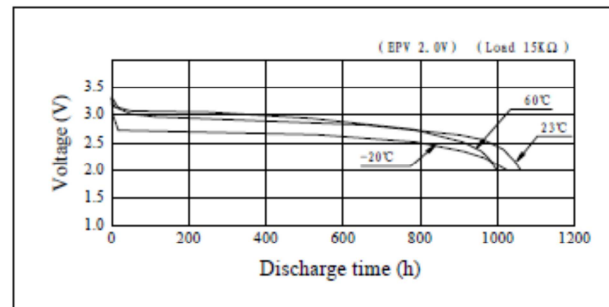
## Specifications

|                          |                  |                                                                                                                                                   |   |                                                                |
|--------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------|
| Nominal Voltage          | 3V               | <div style="text-align: center;"> <p>Dimensions (mm)</p>  </div> | A | $\phi 17.5$                                                    |
| Nominal Capacity         | 220 (mAh)        |                                                                                                                                                   | B | $\phi 20.0 \begin{smallmatrix} +0.0 \\ -0.3 \end{smallmatrix}$ |
| Continuous standard load | 15 (K $\Omega$ ) |                                                                                                                                                   | C | 2.46 (Ref.)                                                    |
| Operating temperature    | -20 ~ 70 °C      |                                                                                                                                                   | D | 3.2 $\begin{smallmatrix} +0.00 \\ -0.30 \end{smallmatrix}$     |
| Weight                   | 3.2 (g)          |                                                                                                                                                   |   |                                                                |

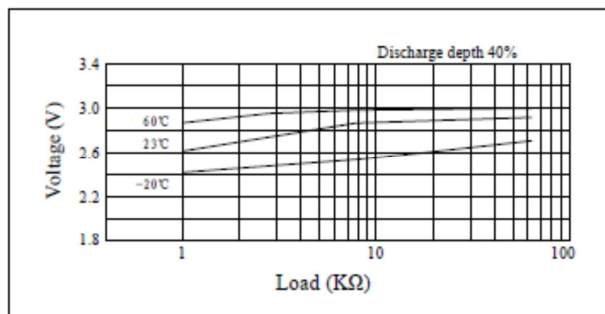
### Discharge characteristics



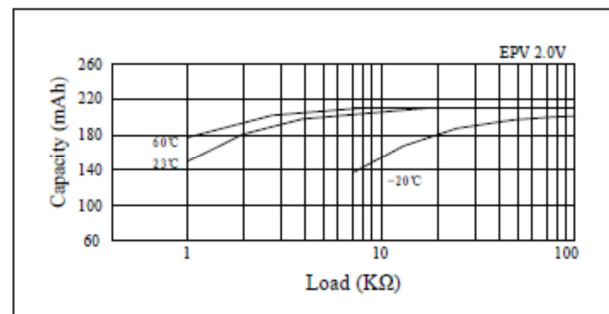
### Temperature characteristics



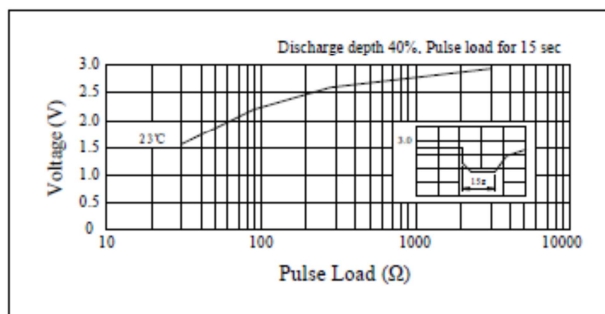
### Load vs. Operating voltage



### Load vs. Capacity



### Pulse discharge characteristics



### Storage characteristics

