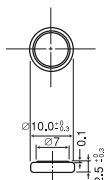
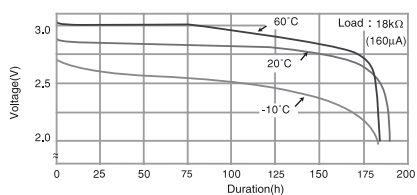


CR-1025

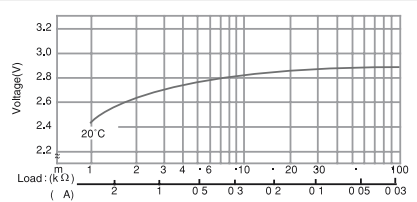


| SPECIFICATIONS             |            |
|----------------------------|------------|
| Name                       | CR-1025    |
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 30         |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 0.7        |

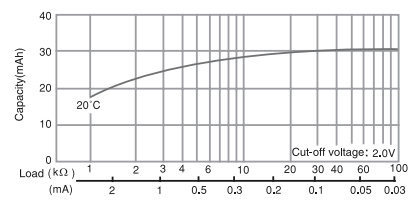
DISCHARGE TEMPERATURE CHARACTERISTICS



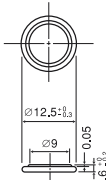
OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



CAPACITY VS. LOAD RESISTANCE

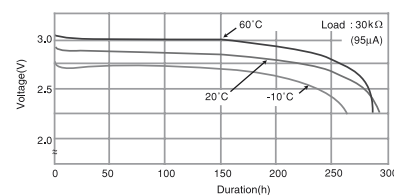


CR-1216

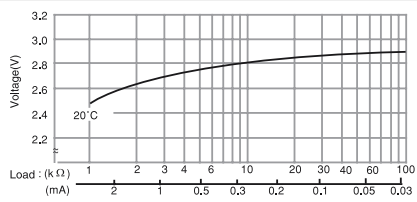


| SPECIFICATIONS             |            |
|----------------------------|------------|
| Name                       | CR-1216    |
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 25         |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 0.7        |

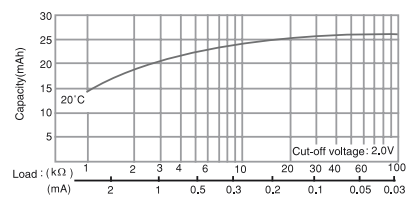
DISCHARGE TEMPERATURE CHARACTERISTICS



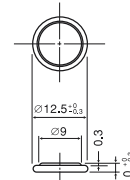
OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



CAPACITY VS. LOAD RESISTANCE

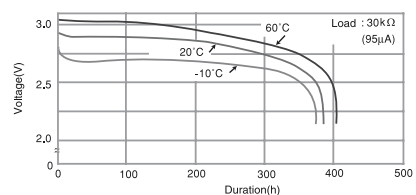


CR-1220

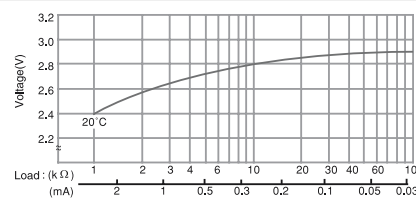


| SPECIFICATIONS             |            |
|----------------------------|------------|
| Name                       | CR-1220    |
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 35         |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 1.2        |

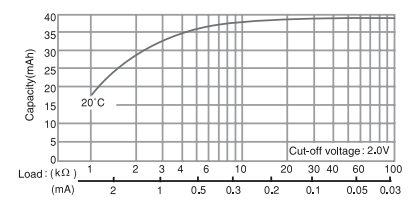
DISCHARGE TEMPERATURE CHARACTERISTICS



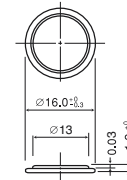
OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



CAPACITY VS. LOAD RESISTANCE

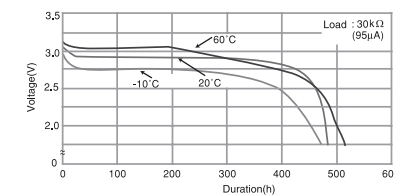


CR-1612

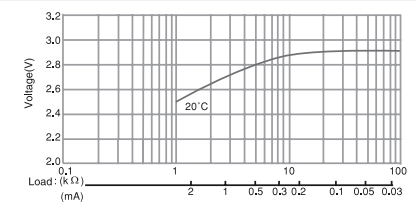


| SPECIFICATIONS             |            |
|----------------------------|------------|
| Name                       | CR-1612    |
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 40         |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 0.8        |

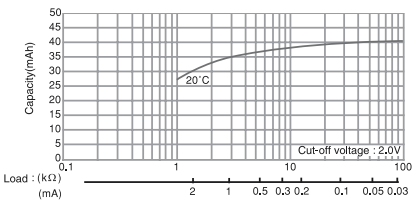
DISCHARGE TEMPERATURE CHARACTERISTICS



OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



CAPACITY VS. LOAD RESISTANCE

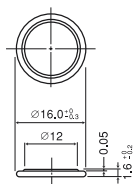


The data in this document are for descriptive purposes only and are not intended to make or imply any guarantee or warranty.  
\* Voltage at 50% discharge depth.

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\* Voltage at 50% discharge depth.

## MANGANESE DIOXIDE LITHIUM BATTERIES (CR SERIES)

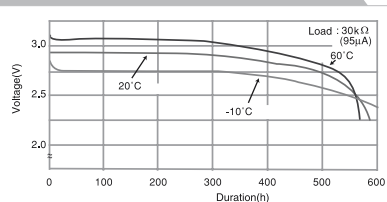
### CR-1616



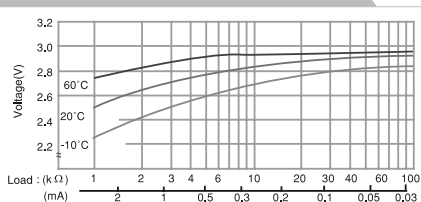
#### SPECIFICATIONS

| Name                       | CR-1616    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 55         |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 1.2        |

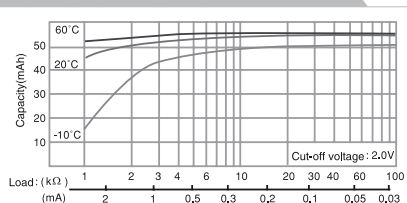
#### DISCHARGE TEMPERATURE CHARACTERISTICS



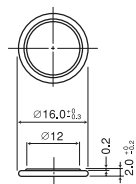
#### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



#### CAPACITY VS. LOAD RESISTANCE



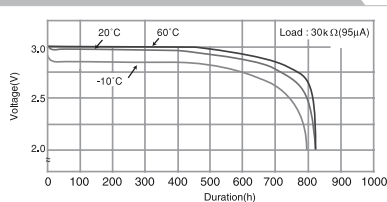
### CR-1620



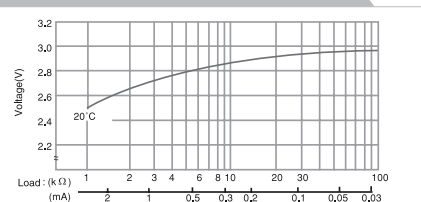
#### SPECIFICATIONS

| Name                       | CR-1620    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 75         |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 1.3        |

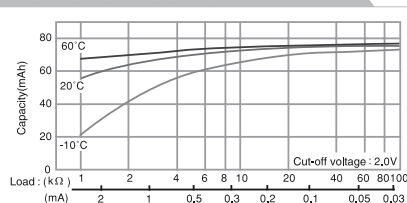
#### DISCHARGE TEMPERATURE CHARACTERISTICS



#### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*

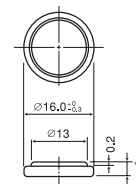


#### CAPACITY VS. LOAD RESISTANCE



## MANGANESE DIOXIDE LITHIUM BATTERIES (CR SERIES)

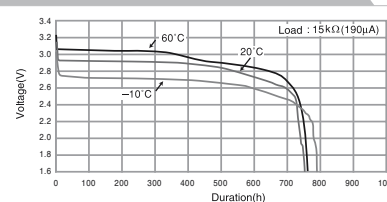
### CR-1632



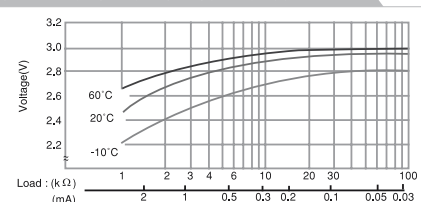
#### SPECIFICATIONS

| Name                       | CR-1632    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 140        |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 1.8        |

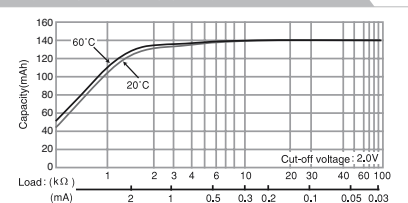
#### DISCHARGE TEMPERATURE CHARACTERISTICS



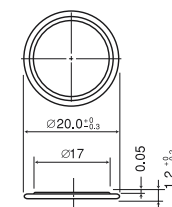
#### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



#### CAPACITY VS. LOAD RESISTANCE



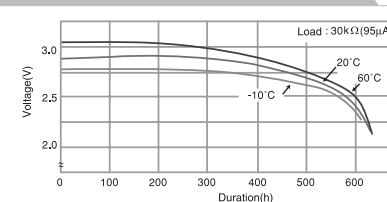
### CR-2012



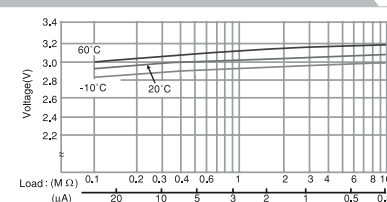
#### SPECIFICATIONS

| Name                       | CR-2012    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 55         |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 1.4        |

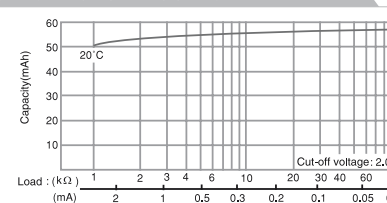
#### DISCHARGE TEMPERATURE CHARACTERISTICS



#### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*

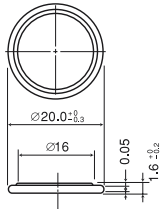


#### CAPACITY VS. LOAD RESISTANCE



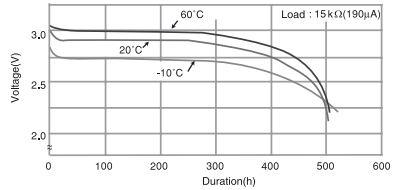
## MANGANESE DIOXIDE LITHIUM BATTERIES (CR SERIES)

### CR-2016

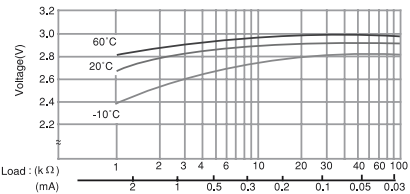


| SPECIFICATIONS             |            |
|----------------------------|------------|
| Name                       | CR-2016    |
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 90         |
| Continuous drain (mA)      | 0.1        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 1.6        |

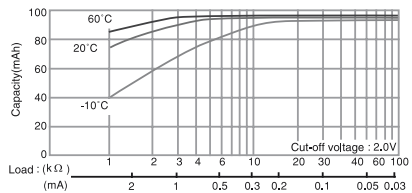
#### DISCHARGE TEMPERATURE CHARACTERISTICS



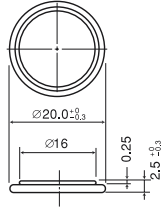
#### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



#### CAPACITY VS. LOAD RESISTANCE

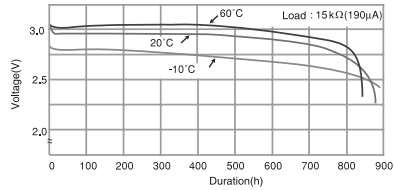


### CR-2025

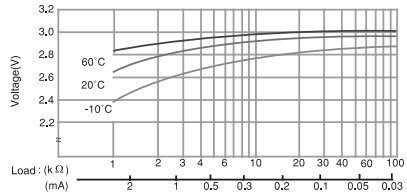


| SPECIFICATIONS             |            |
|----------------------------|------------|
| Name                       | CR-2025    |
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 165        |
| Continuous drain (mA)      | 0.2        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 2.3        |

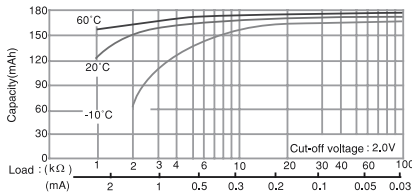
#### DISCHARGE TEMPERATURE CHARACTERISTICS



#### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*

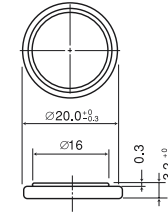


#### CAPACITY VS. LOAD RESISTANCE



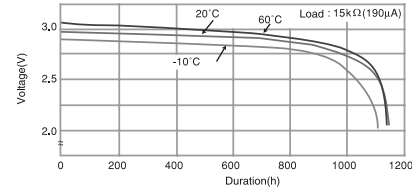
## MANGANESE DIOXIDE LITHIUM BATTERIES (CR SERIES)

### CR-2032

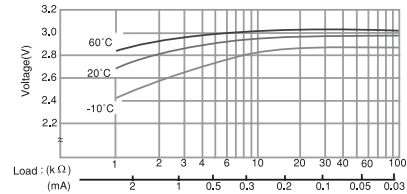


| SPECIFICATIONS             |            |
|----------------------------|------------|
| Name                       | CR-2032    |
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 220        |
| Continuous drain (mA)      | 0.2        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 2.9        |

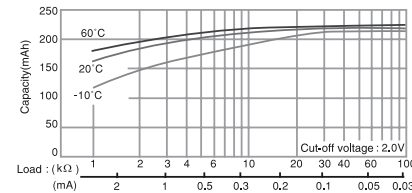
#### DISCHARGE TEMPERATURE CHARACTERISTICS



#### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



#### CAPACITY VS. LOAD RESISTANCE



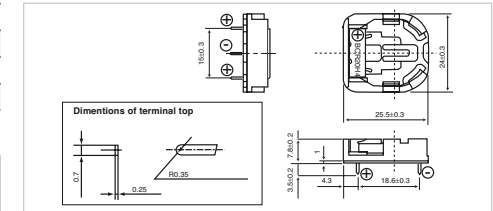
### Lithium battery holders for CR-2032

These battery holders are designed for sure and easy loading/removal of Panasonic Coin Type Lithium batteries in/from equipment enabling the batteries to fully exploit their capabilities as the back-up power supply in C-MOS RAM memory and microcomputer memory. All of the battery holders are designed to prevent inverted insertion of the battery.

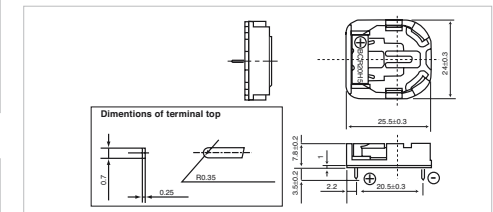


BCR20H4      BCR20H5      BCR20V4

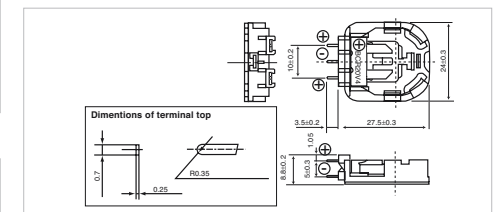
#### BCR20H4 (3 terminals)



#### BCR20H5 (2 terminals)



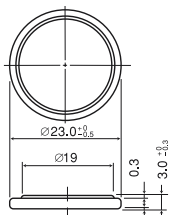
#### BCR20V4 (3 terminals)



### Precaution for washing battery holders

The battery holders can be adversely affected by some detergents use in the circuit board washing process and may result in cracks forming in the holder. Please test the holders in your washing process before use.

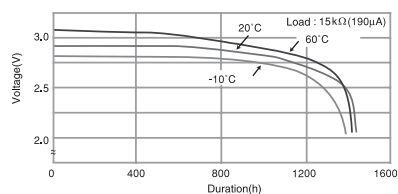
## CR-2330



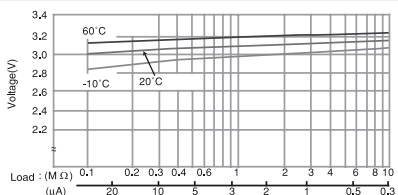
## SPECIFICATIONS

| Name                       | CR-2330    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 265        |
| Continuous drain (mA)      | 0.2        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 3.8        |

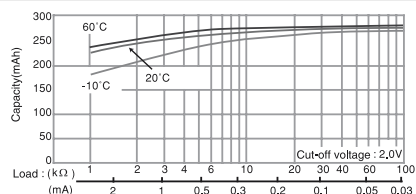
## DISCHARGE TEMPERATURE CHARACTERISTICS



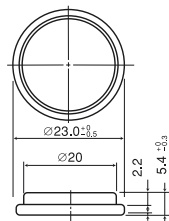
## OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



## CAPACITY VS. LOAD RESISTANCE



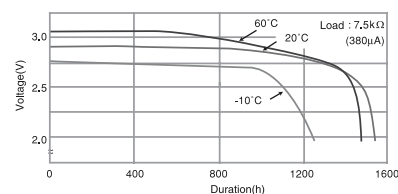
## CR-2354



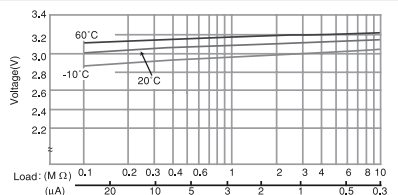
## SPECIFICATIONS

| Name                       | CR-2354    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 560        |
| Continuous drain (mA)      | 0.2        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 5.8        |

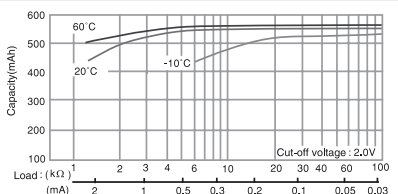
## DISCHARGE TEMPERATURE CHARACTERISTICS



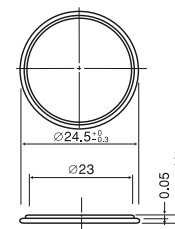
## OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



## CAPACITY VS. LOAD RESISTANCE



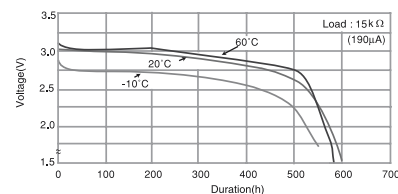
## CR-2412



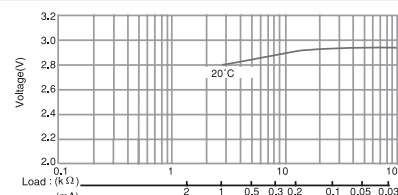
## SPECIFICATIONS

| Name                       | CR-2412    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 100        |
| Continuous drain (mA)      | 0.2        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 2.0        |

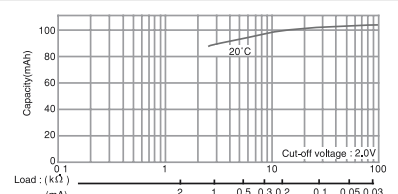
## DISCHARGE TEMPERATURE CHARACTERISTICS



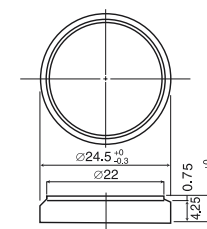
## OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



## CAPACITY VS. LOAD RESISTANCE



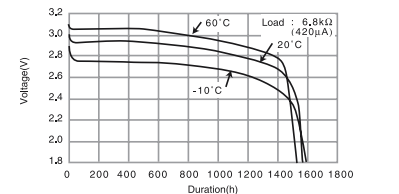
## CR-2450



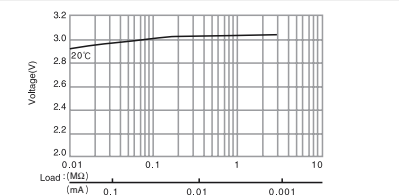
## SPECIFICATIONS

| Name                       | CR-2450    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 620        |
| Continuous drain (mA)      | 0.2        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 6.3        |

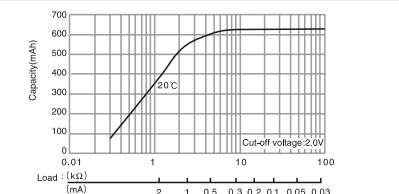
## DISCHARGE TEMPERATURE CHARACTERISTICS



## OPERATING VOLTAGE VS. DISCHARGE CURRENT\*

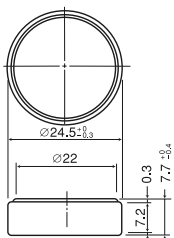


## CAPACITY VS. LOAD RESISTANCE



# MANGANESE DIOXIDE LITHIUM BATTERIES (CR SERIES)

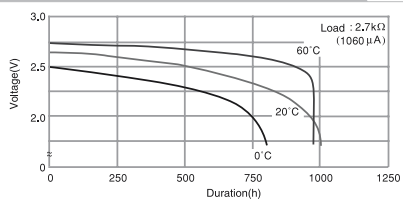
## CR-2477



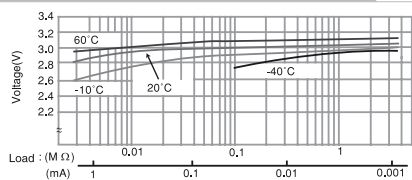
### SPECIFICATIONS

| Name                       | CR-2477    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 1,000      |
| Continuous drain (mA)      | 0.2        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 10.5       |

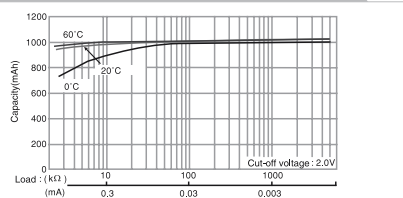
### DISCHARGE TEMPERATURE CHARACTERISTICS



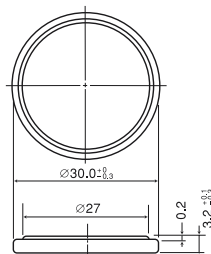
### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



### CAPACITY VS. LOAD RESISTANCE



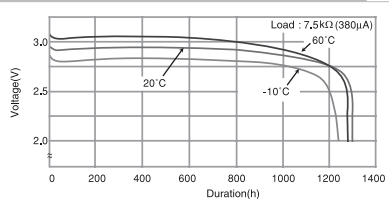
## CR-3032



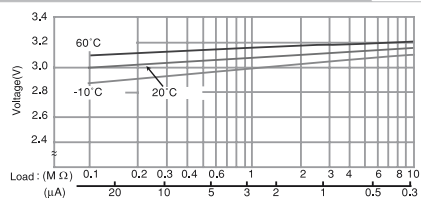
### SPECIFICATIONS

| Name                       | CR-3032    |
|----------------------------|------------|
| Nominal voltage (V)        | 3          |
| Nominal capacity (mAh)     | 500        |
| Continuous drain (mA)      | 0.2        |
| Operating temperature (°C) | -30 to +60 |
| Weight (g)                 | 6.8        |

### DISCHARGE TEMPERATURE CHARACTERISTICS



### OPERATING VOLTAGE VS. DISCHARGE CURRENT\*



### CAPACITY VS. LOAD RESISTANCE

