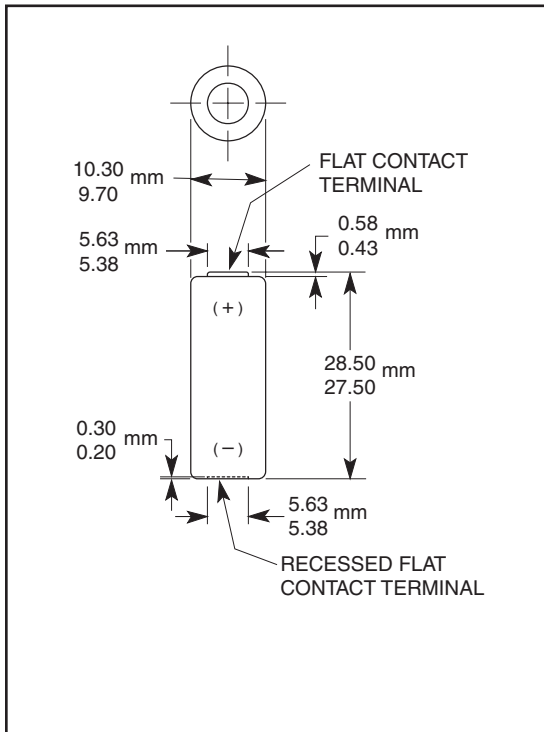


# DURACELL®

## Alkaline-Manganese Dioxide Battery

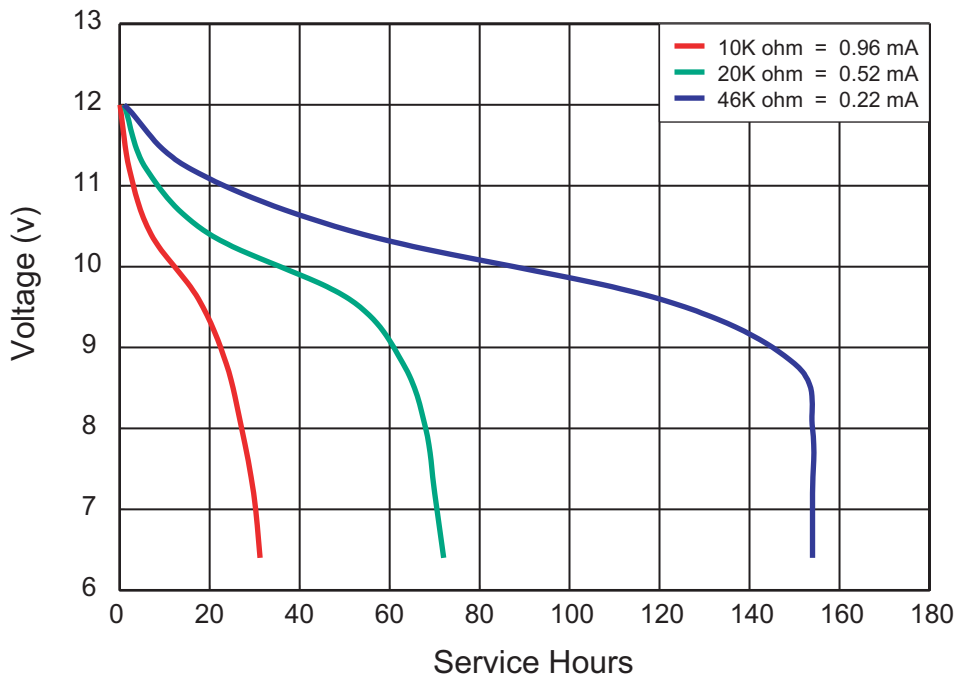
# MN21

Zn/MnO<sub>2</sub>



|                                     |  |
|-------------------------------------|--|
| <b>Nominal Voltage:</b>             | 12.0 V                                       |
| <b>Nominal Internal Impedance:</b>  | 22 ohm @ 1kHz                                |
| <b>Average Weight:</b>              | 7.4 gm (0.26 oz.)                            |
| <b>Average Volume:</b>              | 2.3 cm <sup>3</sup> (0.14 in. <sup>3</sup> ) |
| <b>Terminals:</b>                   | Flat   |
| <b>Operating Temperature Range:</b> | -20°C to 54°C<br>(-4°F to 130°F)             |
| <b>NEDA:</b>                        | 1811A  |
| <b>IEC/ANSI:</b>                    | -  |

### TYPICAL DISCHARGE CHARACTERISTICS AT 21°C (70°F)



**DURACELL®**  
BATTERIES

\* Delivered capacity is dependent on the applied load, operating temperature and cut-off voltage. Please refer to the chart and discharge data shown for examples of the energy / service life that the battery will provide for various load conditions.

This data is subject to change. Performance information is typical. Contact Duracell for the latest information

# DURACELL®

## SPECIFICATION SUMMARY:

### SELECTED PRODUCTS

#### ALKALINE PRIMARY CELLS & BATTERIES

DURACELL® alkaline-manganese dioxide batteries are a popular choice for most consumer, industrial, and military applications where an economical, general purpose battery is required. Advantages include high energy output, reliability, long shelf life, and good low temperature performance.<sup>(1)</sup> The DURACELL® alkaline battery system is generally available in cylindrical and multicell configurations.

| DURACELL<br>PRODUCT<br>NUMBER | SIZE | NOMINAL<br>VOLTAGE<br>(V) | DIMENSIONS <sup>(2)</sup> |     |         |     |         |     | NOMINAL<br>WEIGHT |     | NOMINAL<br>VOLUME |                 | CROSS REFERENCE |     |
|-------------------------------|------|---------------------------|---------------------------|-----|---------|-----|---------|-----|-------------------|-----|-------------------|-----------------|-----------------|-----|
|                               |      |                           | MAXIMUM                   |     | MAXIMUM |     | MAXIMUM |     | g                 | oz. | cm <sup>3</sup>   | in <sup>3</sup> | ANSI            | IEC |
|                               |      |                           | mm                        | in. | mm      | in. | mm      | in. |                   |     |                   |                 |                 |     |

#### STANDARD CYLINDRICAL CELLS

|        | SIZE | NOMINAL<br>VOLTAGE<br>(V) | DIAMETER |      | HEIGHT |      |    |     | NOMINAL<br>WEIGHT |      | NOMINAL<br>VOLUME |                 | CROSS REFERENCE |      |
|--------|------|---------------------------|----------|------|--------|------|----|-----|-------------------|------|-------------------|-----------------|-----------------|------|
|        |      |                           | mm       | in.  | mm     | in.  | mm | in. | g                 | oz.  | cm <sup>3</sup>   | in <sup>3</sup> | ANSI            | IEC  |
| MN1300 | D    | 1.5                       | 34.2     | 1.35 | 61.5   | 2.42 | -  | -   | 139               | 4.90 | 56.4              | 3.44            | 13A             | LR20 |
| MN1400 | C    | 1.5                       | 26.2     | 1.03 | 50     | 1.97 | -  | -   | 69.0              | 2.43 | 26.9              | 1.64            | 14A             | LR14 |
| MN1500 | AA   | 1.5                       | 14.5     | 0.57 | 50.5   | 1.99 | -  | -   | 23.8              | 0.84 | 8.4               | 0.51            | 15A             | LR6  |
| MN2400 | AAA  | 1.5                       | 10.5     | 0.41 | 44.5   | 1.75 | -  | -   | 11.0              | 0.39 | 3.8               | 0.23            | 24A             | LR03 |
| MN9100 | N    | 1.5                       | 12       | 0.47 | 30.2   | 1.19 | -  | -   | 9.6               | 0.34 | 3.4               | 0.21            | 910A            | LR1  |

#### ULTRA CYLINDRICAL CELLS

|        | SIZE | NOMINAL<br>VOLTAGE<br>(V) | DIAMETER |      | HEIGHT |      |    |     | NOMINAL<br>WEIGHT |      | NOMINAL<br>VOLUME |                 | CROSS REFERENCE |         |
|--------|------|---------------------------|----------|------|--------|------|----|-----|-------------------|------|-------------------|-----------------|-----------------|---------|
|        |      |                           | mm       | in.  | mm     | in.  | mm | in. | g                 | oz.  | cm <sup>3</sup>   | in <sup>3</sup> | ANSI            | IEC     |
| MX1300 | D    | 1.5                       | 34.2     | 1.35 | 61.5   | 2.42 | -  | -   | 147               | 5.19 | 56.4              | 3.44            | 13A             | LR20    |
| MX1400 | C    | 1.5                       | 26.2     | 1.03 | 50.0   | 1.97 | -  | -   | 71.7              | 2.53 | 26.9              | 1.64            | 14A             | LR14    |
| MX1500 | AA   | 1.5                       | 14.5     | 0.57 | 50.5   | 1.99 | -  | -   | 24.4              | 0.86 | 8.4               | 0.51            | 15A             | LR6     |
| MX2400 | AAA  | 1.5                       | 10.5     | 0.41 | 44.5   | 1.75 | -  | -   | 11.2              | 0.40 | 3.8               | 0.23            | 24A             | LR03    |
| MX2500 | AAAA | 1.5                       | 8.3      | 0.33 | 42.5   | 1.67 | -  | -   | 6.0               | 0.21 | 2.3               | 0.14            | 25A             | LR8D425 |

#### OTHER SELECTED MULTICELL BATTERIES

|        | SIZE         | NOMINAL<br>VOLTAGE<br>(V) | LENGTH |      | HEIGHT |      | WIDTH |      | NOMINAL<br>WEIGHT |      | NOMINAL<br>VOLUME |                 | CROSS REFERENCE |         |
|--------|--------------|---------------------------|--------|------|--------|------|-------|------|-------------------|------|-------------------|-----------------|-----------------|---------|
|        |              |                           | mm     | in.  | mm     | in.  | mm    | in.  | g                 | oz.  | cm <sup>3</sup>   | in <sup>3</sup> | ANSI            | IEC     |
| MX1604 | ULTRA 9-VOLT | 9                         | 26.5   | 1.04 | 48.5   | 1.91 | 17.5  | 0.69 | 46.5              | 1.64 | 22.8              | 1.39            | 1604A           | 6LR61   |
| MN1604 | 9-VOLT       | 9                         | 26.5   | 1.04 | 48.5   | 1.91 | 17.5  | 0.69 | 45.0              | 1.60 | 22.8              | 1.39            | 1604A           | 6LR61   |
| 7K67   | J            | 6                         | 35.6   | 1.40 | 48.5   | 1.91 | 9.1   | 0.36 | 34.0              | 1.20 | 15.7              | 0.96            | 1412AP          | 4LR61   |
| MN908  | LANTERN      | 6                         | 67.0   | 2.64 | 115    | 4.53 | 67.0  | 2.64 | 612               | 21.6 | 501.8             | 30.6            | 908A            | 4LR25X  |
| MN918  | LANTERN      | 6                         | 136.5  | 5.37 | 127    | 5.00 | 73.0  | 2.87 | 1270              | 44.8 | 1243.5            | 75.9            | 918A            | 4LR25-2 |
| MN1203 | LANTERN      | 4.5                       | 62.0   | 2.44 | 67.0   | 2.64 | 22.0  | 0.87 | 154               | 5.43 | 91.4              | 5.58            | -               | 3LR12   |
| MN21   | CYLINDRICAL  | 12                        | 10.3   | 0.41 | 28.5   | 1.12 | -     | -    | 7.40              | 0.26 | 2.30              | 0.14            | -               | -       |

(1) Operating temperature range is -20°C to 54°C (-4°F to 130°F)

(2) Dimensions are IEC/ANSI standards.