WAMA ELECTRONICS TECHNOLOGY CO.,LTD

ALKALINE MANGANESE BATTERY

1.Other name for the same type

L1028, 23L, VR22

2.Chemical System

Alkaline Zinc—Manganese battery (+) Zn|KOH|MnO₂(-)

3.Nominal Voltage: 12V

4.Average Weight: 7.1 g

5.Nominal Capacity: 47 mAh

(continuous discharge at 20±2℃ under 0.10mA discharge current to 7.2V voltage)

6.Appearance: Metal Can

7. Electrical Characteristics:

7.1 Off—load Voltage:

New Battery≥12.10V

After 12 Months (Room Temp.)≥12.00V

7.2 Discharge Time(continuous discharge at 20±2°C under 20ΚΩ discharge load to 7.2V voltage)

New Battery≥80hours

After 12 Months (Room Temp.)≥72hours

7.3 Over—discharge Characteristic

Condition: 20KΩcontinuous discharge at 20±2°C &65±20%R.H.

Period: 48hours

Characteristic: No deformation is over 0.20mm of the nominal dimension,

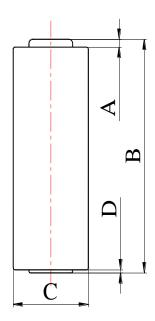
and no visual electrolyte leakage

8. Dimensions:

Nominal Dimension: ø9.90×27.90

(Unit: mm)

Dimension	Range
A(ref.)	0.80~1.2
В	27.90±0.40
С	9.80±0.15
D(ref.)	0.10



9. Typical Discharge Characteristics

(continuous discharge at 20±2 $^{\circ}{\rm C}$ under 20K Ω discharge load to 7.2V voltage)

12. 60

11. 60

10. 60

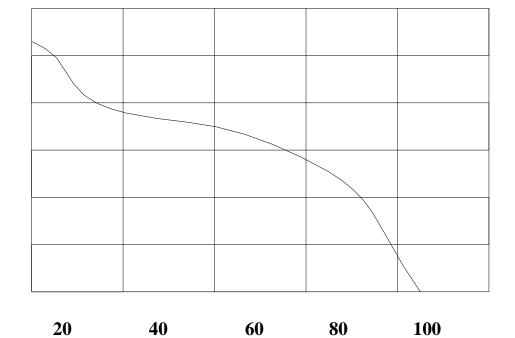
9.60

8.60

7. 60

6.60

0



oltage(v)

10. Mark:

The following message will be printed or stamped on the body of the battery:

- 10.1 Designation: A23 L1028 etc.
- 10.2 Manufacturer's name: WAMA ELECTRONICS TECHNOLOGY CO.,LTD
- 10.3 Trademark: no
- 10.4 Nominal Voltage: 12V.
- 10.5: Pole: "+".
- 10.6 Warning: May explode or leak if charged or disposed of in fire.

11. Caution for use:

- 11.1 There are risks of electrolyte leakage or causing damage to the device if the battery is charged;
- 11.2 The battery shall be installed with "+" and "-" in correct position;
- 11.3 Short-circuiting and heating the battery, disposing of the can must not be permitted.