Control Number:WK2022E01

TECHNICAL INFORMATION

ALKALINE MANGANESE BATTERY

LR6 Premium

FDK CORPORATION
ALKALINE BATTERY DIVISION
QUALITY ASSURANCE DEPARTMENT

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1．Type　　：LR6 Premium　(IEC : LR6, JIS : LR6)

2．Nominal value：

(1) Nominal voltage : 1.5 volts

(2) Standard capacity : 2,840 mAh (75Ω continuously discharge at 20℃,End point voltage = 0.9 volts)

3．Structure　：Show Fig.1.

4．Dimension　：Show Fig.2.

5．Electric characteristics

	Initial	After 1 years	After 10 years
Off-load voltage (V)	1.60	1.59	1.56
On-load voltage (V)	1.56	1.55	1.46
Short-circuit current (A)	13.0	12.0	9.0

1) Load resistance : 2Ω

Measure time : 0.1 second

2) Test temperature : 20±2℃, Storage temperature : 20±2℃.

6．Service out-put

(1) Average duration

Discharge condition		Initial	After1year	After10year
3.9Ω　1hr/D (hr) EPV=0.8V	Normal	**7.8**	**7.7**	**6.7**
	JIS/IEC(MAD)	**5**	**4.5**	**4.5**
100mA　1hr/D (hr) EPV=0.9V	Normal	**23**	**22**	**20**
	JIS/IEC(MAD)	**15**	**13**	**13**
250mA　1hr/D (hr) EPV=0.9V	Normal	**8.5**	**8.4**	**7.8**
	JIS/IEC(MAD)	**5**	**4.5**	**4.5**
50mA　1hr on /7hr off Repeat. (hr.) EPV=1.0V	Normal	**50**	**47**	**44**
	JIS/IEC(MAD)	**30**	**27**	**27**
1500mW 2s ON/650mW 28sON 5m / 55m OFF Repeat. (pulse) EPV=1.05V	Normal	**100**	**87**	**74**
	JIS/IEC(MAD)	**40**	**36**	**36**
3.9Ω　4m ON/56m OFF Repeat. × 8hr/D (min.) EPV=0.9V	Normal	**423**	**400**	**372**
	JIS/IEC(MAD)	**230**	**205**	**205**

1) EPV：End point voltage

2) Test temperature : 20±2℃, Storage temperature : 20±2℃.

3) MAD=Minimum average duration

(Minimum average time on discharge which is met by a sample of batteries)

*This data are not intended to make or imply any guarantee or warranty.

7．Electrolyte leakage proof characteristics

(1) Over-discharge test

Visual check at the time when the on-load voltage of test cell first decreases below 40% of the nominal voltage.

Discharge condition	n	Leakage
3.9Ω 1hr/D	n=8×5lots	none
250mA 1hr/D	n=8×5lots	none
100mA 1hr/D	n=8×5lots	none
1500mW 2s ON/650mW 28sON 5m / 55m OFF Repeat.	n=8×5lots	none

(2) Storage at 45℃, below 70%RH

Period	n	10days	20days	30days	60days	90days
Leakage	40	none	none	none	none	none

(3) Storage at 60℃, 90%RH

Period	n	10days	20days	30days	40days
Leakage	40	none	none	none	none

8．Safety characteristics (abuse test)

(1) Short circuit test

Shorted time	n	24hours
Explosion	5	none

(2) Incorrect installation (for batteries in series)

Charging time	n	24hours
Explosion	10	none

9．Operating temperature range

-10℃～50℃(In the state of over 40℃, within 30 day)

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Fig.1 LR6 STRUCTURE

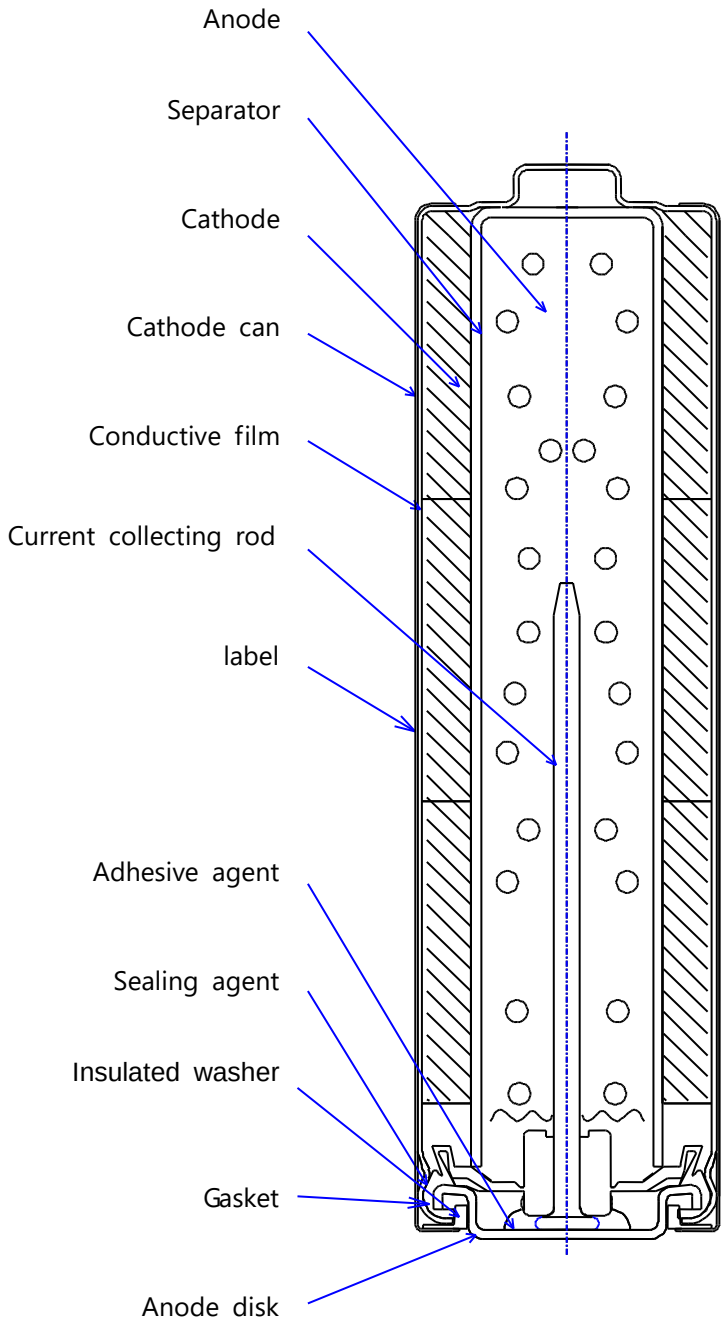

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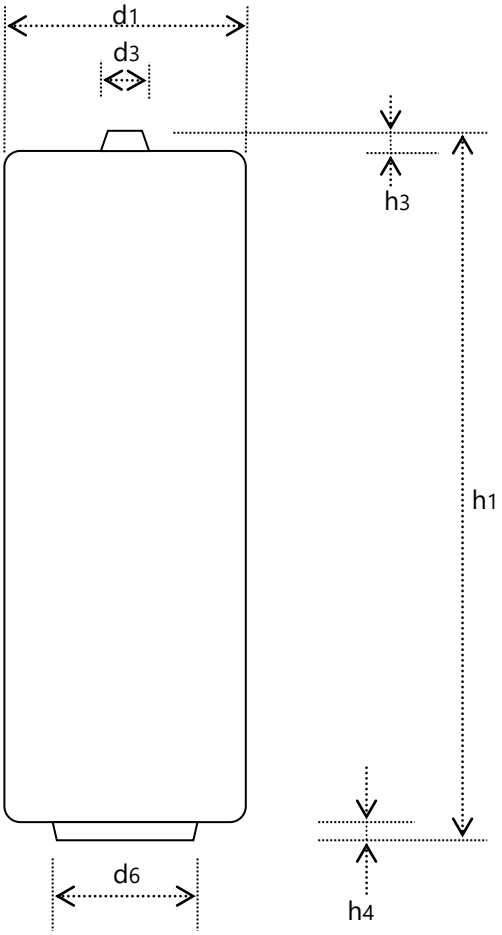
Fig.2 LR6 DIMENSION



Unit : mm

h1	Overall height	50.5 max. (49.5 min.)
d6	Outer diameter of the negative contact area	7.0 min.
h4	Recess of negative contact from enclosure	0.5 max.
d3	Diameter of the positive contact	5.5 max. (4.2 min.)
h3	Height of the projected flat contact from the next higher part	1.0 min.
d1	Diameter	14.5 max. 13.7 min.

The numerical values in parentheses are informative reference values.