TECHNICAL INFORMATION

MANGANESE DRY BATTERY

R03

(Made in China)

September 6, 2013

FDK CORPORATION

FDK ENERGY CO., LED
QUALITY CONTROL DEPARTMENT

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1. Type

FUJITSU General Purpose R03 (Made in China)
(IEC : R03, JIS : R03)

2. Nominal value

(1)Nominal voltage : 1.5 volts
(2)Standard capacity : 486 mAh (75Ω discharging for 4 hour in a day. discharge at 20℃, End point voltage = 0.9 volts)

3. Dimension

Show Fig.1.

4. Electric characteristics

	Initial	After 1 years
Off-load voltage (V)	1.55	1.50
Short-circuit current (A)	4.1	3.3

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

5. Service out-put

(1) Average duration (JIS C 8515)

Discharge condition		Initial	After 1 year
24Ω 15S/M,8H/D (hr) EPV=1.0V	JIS	Above 4.0	Above 3.2
	Normal	**6.5**	**5.85**
10Ω 1hr./day (hr) EPV=0.9V	JIS	Above 1.5	Above 1.2
	Normal	**2.4**	**2.16**
75Ω 4hr./day (hr) EPV=0.9V	JIS	Above 20.0	Above 16.0
	Normal	**25.0**	**22.5**

1) EPV : End point voltage
2) Test temperature : 20±2℃, Storage temperature : 20±2℃.

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6. 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
5.1Ω 30min./day	n=9×5lots	none
10Ω 1hr./day	n=9×5lots	none
75Ω 4hr./day	n=9×5lots	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

7. Safety characteristics (abuse test)

(1) Short circuit test

Shorted time	n	12hours	24hours
Explosion	20	none	none

(2) Charging test (150mA)

Charging time	n	12hours	24hours
Explosion	20	none	none

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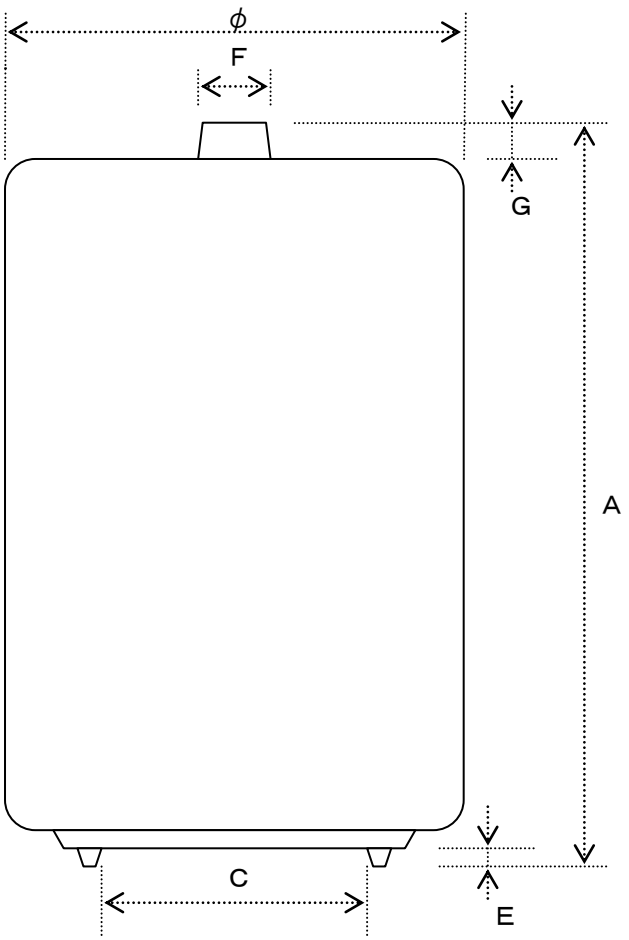
Fig.1 R03 DIMENSION



Unit : mm

A	Overall height	44.5 max. (43.3 min.)
C	Outer diameter of the negative contact area	4.3 min.
E	Recess of negative contact	0.5 max.
F	Diameter of the positive contact	3.8 max. (2.0 min.)
G	Height of the projected flat contact from the next higher part	0.8 min.
ϕ	Diameter	10.5 max. 9.5 min.

The numerical values in parentheses are informative reference values. (JIS C 8515)