

## Product Specification

1. Scope : This specification is applicable to the following product : D MJ Sanyo Super ( Blue ) supplied from PT. Energizer Indonesia.
2. Type : Size D (R20) / UM - 1 : Sanyo Super ( Blue ).
3. Nominal Voltage : 1.5 V
4. Figure and Dimensions : See : SPE No. 040
5. Standard Weight : 100.0 ± 2.0 grams
6. Terminal : + : Cap Terminal, - : Base Terminal
7. Chemical properties : No Mercury addition to the battery
8. Quality Characteristics
  - 8.1. Dimensions : Dimensions are shown in SPE No. 040.
  - 8.2. Terminal : There shall be no rust or deformation that occurs troubles practically.
  - 8.3. Appearance : There shall be no rust or deformation or scratch that occurs troubles practically.
  - 8.4. Electrical Characteristics.

( Table 1 )

Item		Requirement		Test Condition		
Open Circuit ( V )	Initial	Over 1.56	Temp	:	20 ± 2°C	
	After 12 months	Over 1.50	RH	:	65 ± 20 %	
Closed Circuit ( V )	Initial	Over 1.40	Temp	:	20 ± 2°C	
	After 12 months	Over 1.30	RH	:	65 ± 20 %	
			Load	:	4 Ω	
Service Life (H)	Discharge at 3.9 Ω	Initial	Over 8.0	Temp	:	20 ± 2°C
		After 12 months	Over 6.6	RH	:	65 ± 20 %
			End Voltage	:	0.9V	
			Daily Period	:	1h	

### 8.5. Leakage Resistability

( Table 2 )

Item	Rest Condition	Requirement
High Temperature Leakage Test	Temp. : 45 ± 2°C RH : Under 70 % Storage Period : 3 months	There shall be no deformation in excess over MAX. dimensions shown in product dimensions and no visible leakage.

## 9. Test

### 9.1. Storage and Test Conditions

- (1) Storage Condition  
Storage condition shall be kept at 20 ± 2° C and at 65 ± 20%RH.
- (2) Test Condition  
Test shall be conducted at 20 ± 2° C and at 65 ± 20%RH.

### 9.2. Instruments and Devices

- (1) Voltmeters  
Voltmeters used model CP 1706.2 supplied by Newport Instrumentation of Cleveland with accuracy = 0,25%.
- (2) Load Resistance  
The load resistance shall include all resistances in external circuit, and its tolerance shall be ± 0.5%.
- (3) Calipers  
Caliper used with accuracy 0,001"

### 9.3. Test Methods

- (1) Dimensions  
Measurement shall be made with calipers or measuring device having equal or better precision specified in 9.2 (3).
- (2) Terminals  
Visually
- (3) Appearance  
Visually
- (4) Open-Circuit Voltage