

SII ●

SEIZAIKEN

MERCURY-FREE SILVER OXIDE BATTERY



We value the "takumi" spirit.

Seiko Instruments Inc.

SEIZAIKEN

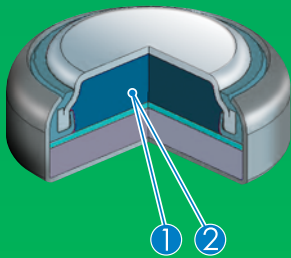
MERCURY-FREE SILVER OXIDE BATTERY

High Quality

SII's mercury-free silver oxide batteries are manufactured in a high-tech clean room environment in a newly constructed factory. This facility was specifically designed for the manufacturing of ultra precision electronic devices and incorporates all new equipment. Within the clean room environment SII has eliminated contamination allowing us to ensure consistent quality.



Advanced Technology



Until recently, a small amount of mercury was included in the chemical compound of the silver oxide battery to suppress the possible generation of hydrogen gas should the zinc-based negative electrode corrode. If this hydrogen gas is generated, leakage resistance and storage stability of the battery will deteriorate and a possibility of swelling may occur. SII developed and incorporated the following two technologies in our no mercury added silver oxide batteries:

1. Use of high-corrosion resistance zinc alloy
2. Addition of a high performance inhibitor in the electrolyte

No Mercury & No Lead Added

According to the European Union (EU) battery directive, the marketing of alkaline manganese batteries containing more than 0.025% of mercury by weight is prohibited due to mercury's hazardous effects on human health and our environment. However, coin cell batteries have been exempt from this prohibition due to the technical difficulty of battery manufacturers to develop a no mercury added silver oxide battery. SII has overcome this challenge with our new SEIZAIKEN mercury free silver oxide battery.

Furthermore, gradual reduction and separate disposal of batteries containing more than 0.4% lead (Pb) by weight was one of the objectives held by the member states of EU. SII has also achieved this goal.



Features

Ecology

The introduction and adoption of new technologies made it possible to avoid using mercury and lead, which are environmentally harmful.

Excellent leakage resistance

Other than eliminating the need for mercury in the compound, these batteries are manufactured to have excellent leakage resistance attained by our newly developed crimping structure. This is made possible by our new high-performance manufacturing machinery and process.

High reliability

Production in our high precision clean room environment thoroughly prevents contamination – resulting in the most consistent, highest reliability battery.

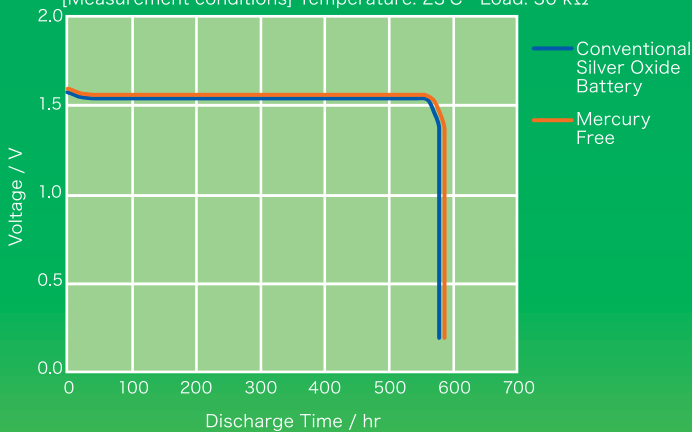


Applications

Watches, Clocks, Cameras, Calculators, Remote Controls, Portable Radio, Digital Thermometers, Digital Instrumentation, Electronic Games, Personal Health Devices.

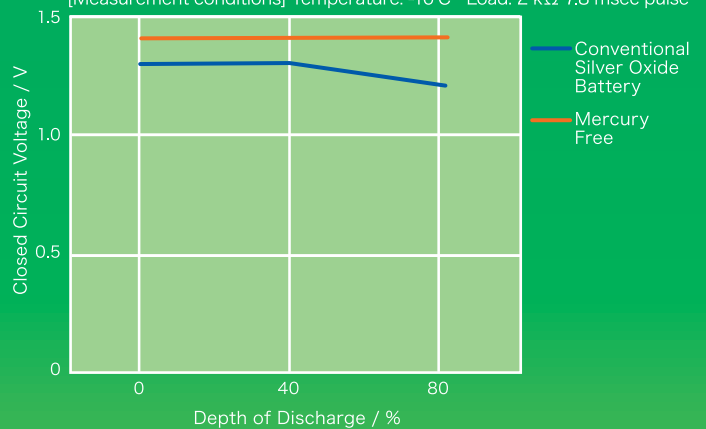
Discharge Characteristics

Example: SR626SW
[Measurement conditions] Temperature: 23°C Load: 30 kΩ



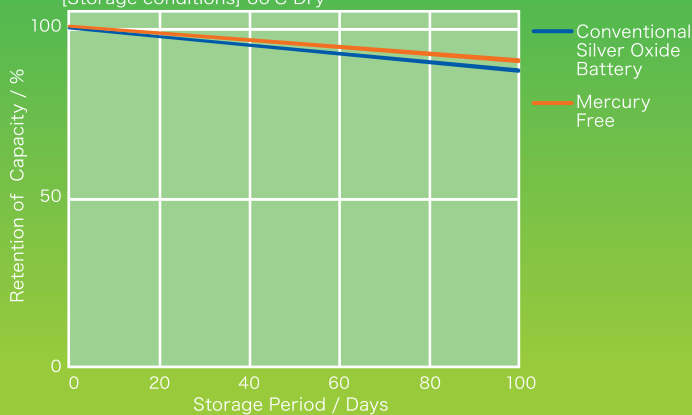
Low Temperature Characteristics

Example: SR626SW
[Measurement conditions] Temperature: -10°C Load: 2 kΩ 7.8 msec pulse



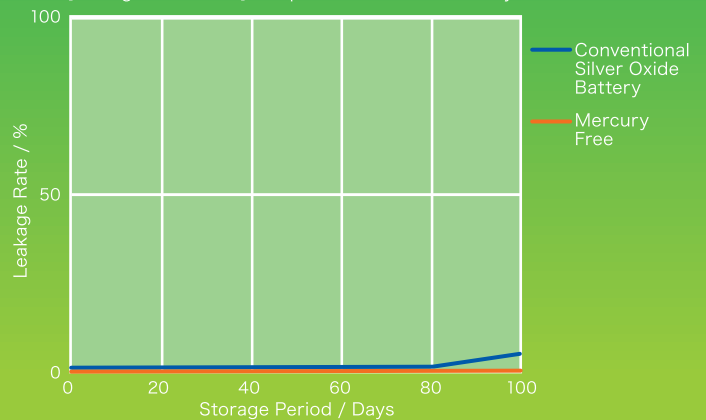
Shelf Life (Storage Performance)

Example: SR626SW
[Measurement conditions] Temperature: 23°C Load: 30 kΩ
[Storage conditions] 60°C Dry



Anti-Leakage Performance

Example: SR626SW
[Storage conditions] Temperature: 45°C Humidity: 93% R.H.



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SPECIFICATIONS

Model No.		Nominal Voltage (V)	Dimensions		Weight (g)	C.C.V. *1	
			Diameter (mm)	Height (mm)		+24°C (V)	-10°C (V)
SR416SW	337	1.55	4.8	1.65	0.11	1.35	1.10
SR421SW	348	1.55	4.8	2.15	0.14	1.35	1.10
(SR512SW)	335	1.55	5.8	1.25	0.15	1.45	1.10
SR516SW	317	1.55	5.8	1.65	0.18	1.45	1.10
SR521SW	379	1.55	5.8	2.15	0.23	1.45	1.10
SR527SW	319	1.55	5.8	2.70	0.29	1.45	1.10
SR616SW	321	1.55	6.8	1.65	0.25	1.45	1.10
SR621SW	364	1.55	6.8	2.15	0.32	1.45	1.20
SR626SW	377	1.55	6.8	2.60	0.39	1.45	1.20
(SR712SW)	346	1.55	7.9	1.25	0.26	1.45	1.10
SR716SW	315	1.55	7.9	1.65	0.33	1.45	1.20
SR721SW	362	1.55	7.9	2.10	0.42	1.45	1.20
SR726SW	397	1.55	7.9	2.60	0.52	1.45	1.20
SR731SW	329	1.55	7.9	3.10	0.56	1.45	1.20
SR41SW	384	1.55	7.9	3.60	0.67	1.45	1.20
SR916SW	373	1.55	9.5	1.65	0.51	1.45	1.20
SR920SW	371	1.55	9.5	2.05	0.60	1.45	1.20
SR927SW	395	1.55	9.5	2.70	0.75	1.45	1.20
SR936SW	394	1.55	9.5	3.60	1.10	1.45	1.20
SR1120SW	381	1.55	11.6	2.05	0.93	1.45	1.20
SR1130SW	390	1.55	11.6	3.05	1.29	1.45	1.20
SR43SW	301	1.55	11.6	4.20	1.75	1.45	1.20
SR44SW	303	1.55	11.6	5.40	2.20	1.45	1.20

*1 C.C.V. : Closed Circuit Voltage Low Drain 2K Ω 7.8msec Pulse

Model No.		Nominal Voltage (V)	Dimensions		Weight (g)	C.C.V. *2	
			Diameter (mm)	Height (mm)		+24°C (V)	-10°C (V)
SR626W	376	1.55	6.8	2.60	0.39	1.35	0.95
SR721W	361	1.55	7.9	2.10	0.41	1.35	1.05
SR726W	396	1.55	7.9	2.60	0.52	1.35	1.05
SR41W	392	1.55	7.9	3.60	0.67	1.35	1.05
SR920W	370	1.55	9.5	2.05	0.60	1.40	1.10
SR927W	399	1.55	9.5	2.70	0.75	1.40	1.10
SR1120W	391	1.55	11.6	2.05	0.93	1.40	1.20
SR1130W	389	1.55	11.6	3.05	1.29	1.40	1.20
SR43W	386	1.55	11.6	4.20	1.75	1.45	1.20
SR44W	357	1.55	11.6	5.40	2.20	1.45	1.20

*2 C.C.V. : Closed Circuit Voltage High Drain 200 Ω 5sec DC

(Specifications are subject to change without notice.)



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