

BSS™ (Lead-acid Battery State Sensor)



Environment



Comfort



Metal



Applications

Status estimation of lead-acid battery

OCV : Open Circuit Voltage
SOC : State Of Charge

SOH : State Of Health
SOF : State Of Function

Features

- Pulse discharge circuit
- Quick and accurate battery state estimation by original algorithm
- Internal resistance measurement of multiple frequencies

Automotive-friendly performance

- Prevention of flat battery
- Fuel efficiency improvement and CO₂ emission reduction



Mounted BSS

How We Did It

Concepts of battery state sensors

Measurement items

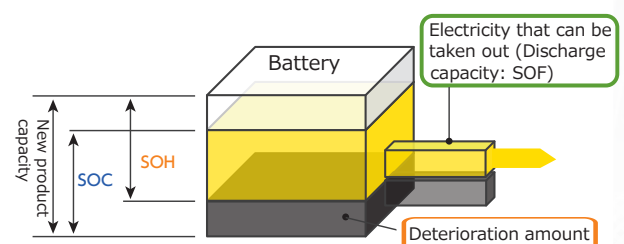
Charge and discharge current
Voltage
Temperature
Internal resistance

Estimating items

OCV	Battery voltage of stable state(V)
SOC	Current charging rate(%)
SOF	Voltage when starting engine(V)
SOH	Current full charging capacity(Ah)

Functions on vehicles

Start-stop system
Charge control
Prevention of flat battery
Battery replacement alarm



※Under our estimation method

Items	Estimation accuracy
OCV	± 0.1V
SOC	± 10%
SOF	± 0.5V
SOH	± 16%