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# HSM112WK

Silicon Schottky Barrier Diode for Battery Switch

# HITACHI

ADE-208-043C (Z)  
Rev. 3

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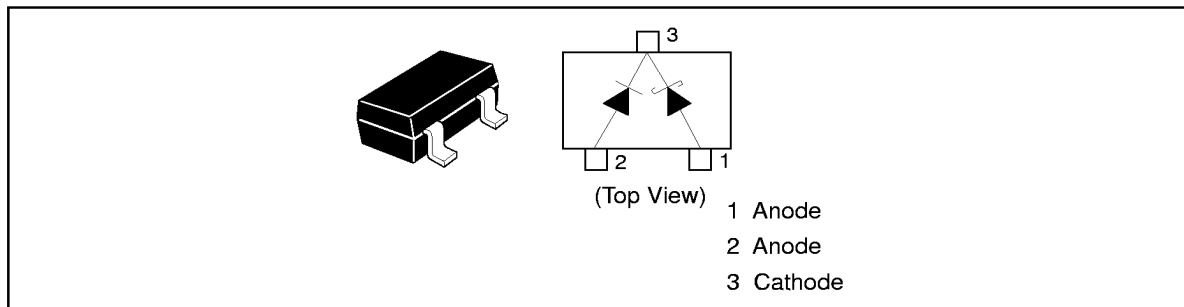
## Features

- The HSM112WK has two different ( $V_F$ - $I_F$ ) chips, and can change the main battery to the backup battery automatically.
- MPAK package is suitable for high density surface mounting and high speed assembly.

## Ordering Information

| Type No. | Laser Mark | Package Code |
|----------|------------|--------------|
| HSM112WK | S2         | MPAK         |

## Pin Arrangement



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## HSM112WK

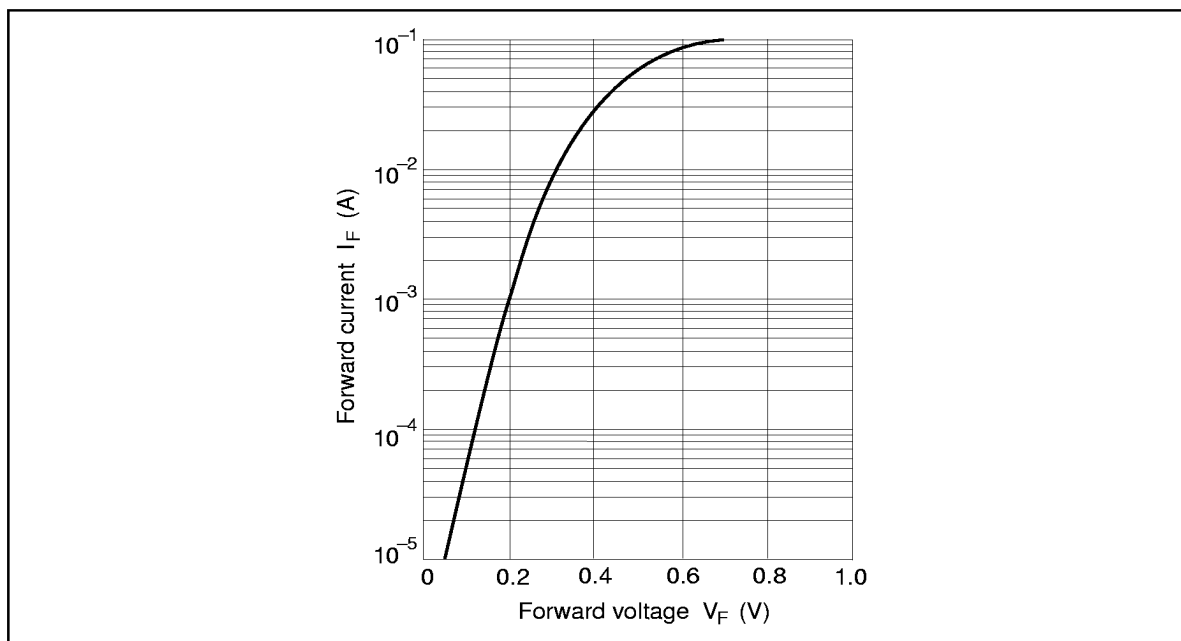
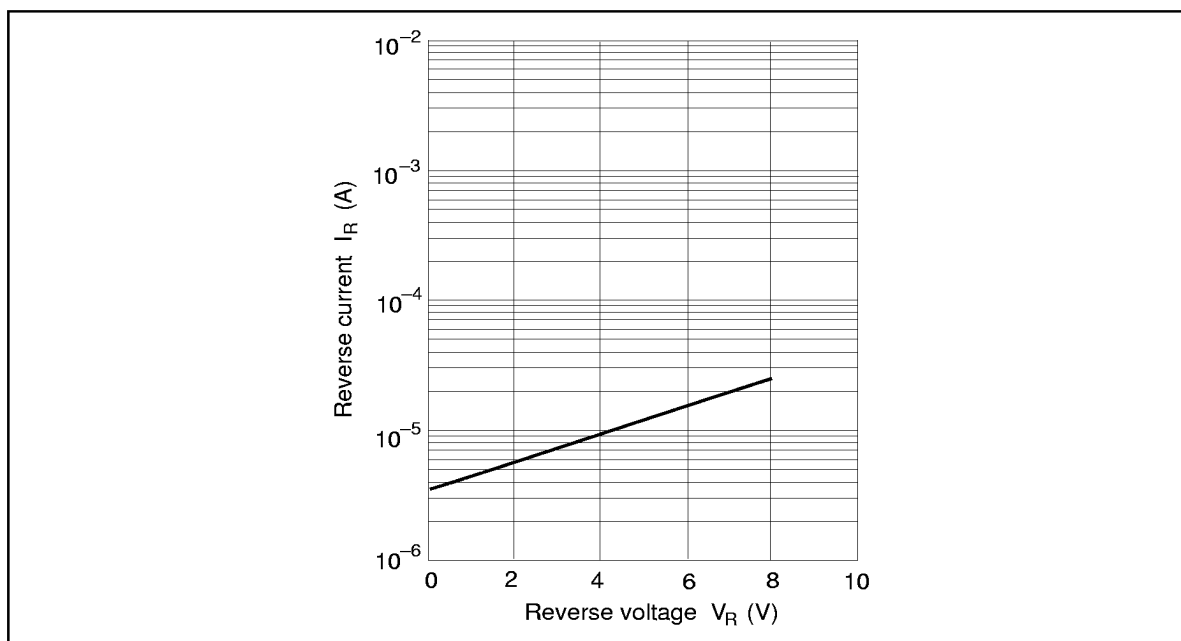
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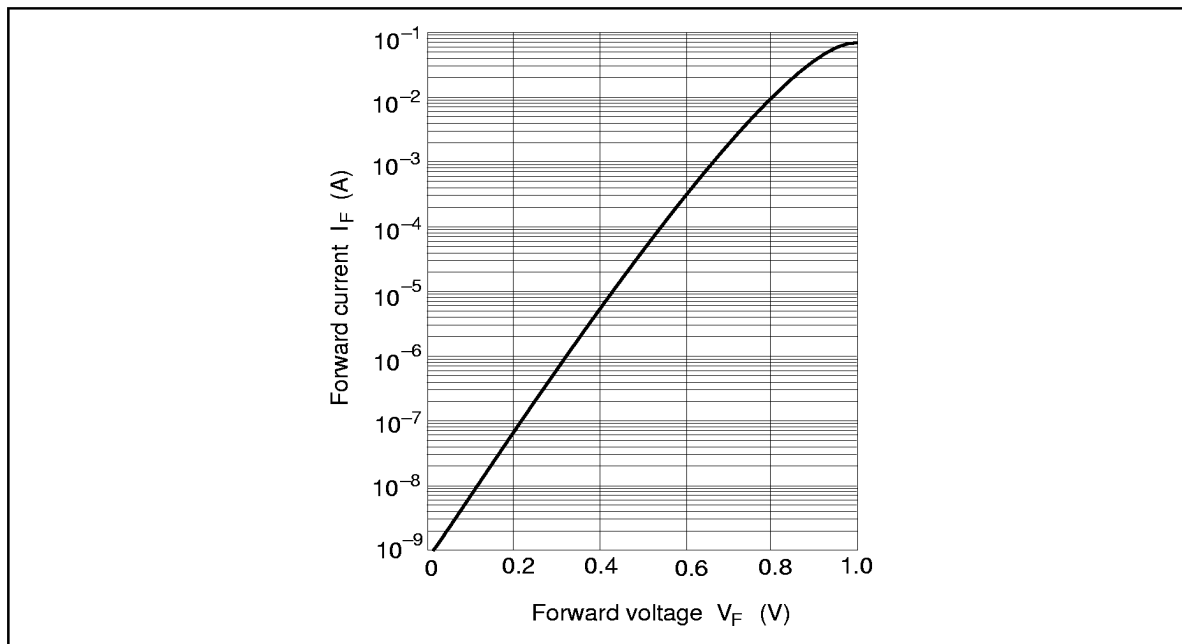
### Absolute Maximum Ratings (Ta = 25°C)

| Item                 | Symbol    | Value<br>Pin 1-3 | Value<br>Pin 2-3 | Unit |
|----------------------|-----------|------------------|------------------|------|
| Peak reverse voltage | $V_{RM}$  | 8                | 10               | V    |
| Forward current      | $I_F$     | 30               | 30               | mA   |
| Junction temperature | $T_J$     | 125              | 125              | °C   |
| Storage temperature  | $T_{stg}$ | -55 to +125      | -55 to +125      | °C   |

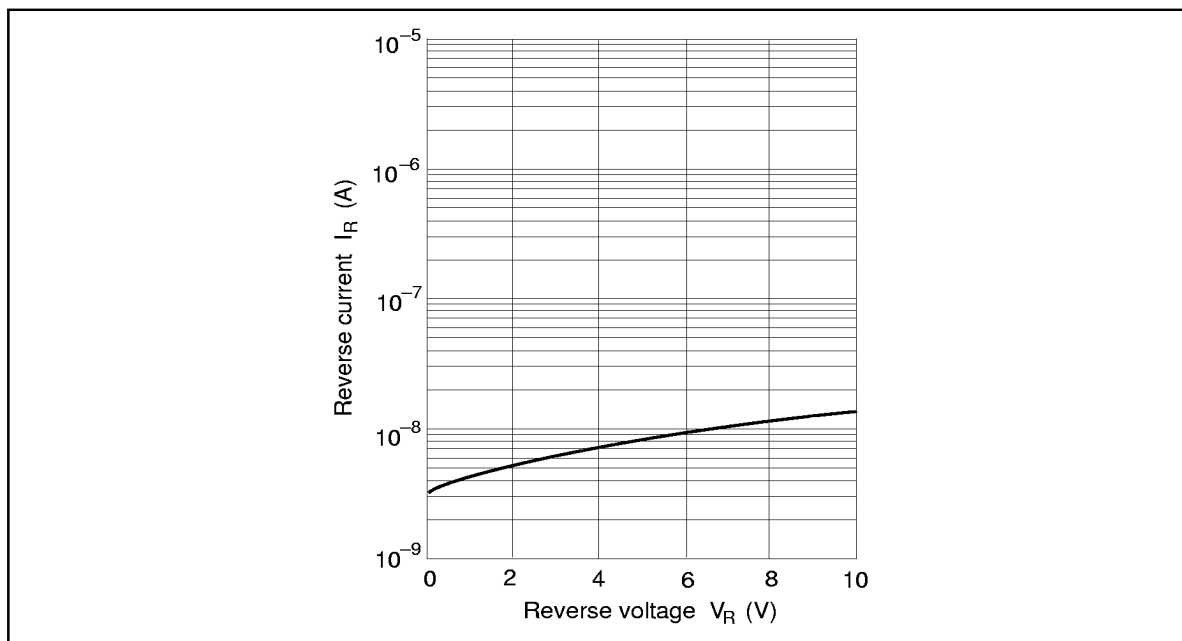
### Electrical Characteristics (Ta = 25°C)

| Item            | Symbol |         | Min | Typ | Max | Unit          | Test Condition                                                                      |
|-----------------|--------|---------|-----|-----|-----|---------------|-------------------------------------------------------------------------------------|
| Forward voltage | $V_F$  | Pin 1-3 | 0.1 | —   | 0.3 | V             | $I_F = 1\text{mA}$                                                                  |
|                 |        | Pin 2-3 | 0.5 | —   | 0.8 |               |                                                                                     |
| Reverse current | $I_R$  | Pin 1-3 | —   | —   | 30  | $\mu\text{A}$ | $V_R = 5\text{V}$                                                                   |
|                 |        | Pin 2-3 | —   | —   | 0.1 |               |                                                                                     |
| ESD-Capability  | —      |         | 225 | —   | —   | V             | C = 200pF,<br>RL = 100 $\Omega$ , Both<br>forward and reverse<br>direction 5 pulse. |

**Fig.1 Forward current Vs. Forward voltage (Pin1-3)****Fig.2 Reverse current Vs. Reverse voltage (Pin1-3)**



**Fig.3 Forward current Vs. Forward voltage (Pin2-3)**



**Fig.4 Reverse current Vs. Reverse voltage (Pin2-3)**

Package Dimensions

