

# HSM113WK

## Silicon Schottky Barrier Diode for Battery Switch

# HITACHI

Preliminary  
Rev.1  
Apr. 1993

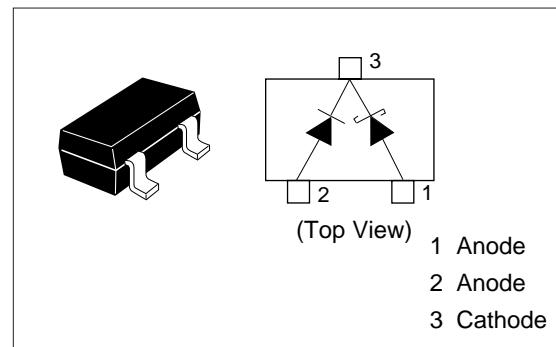
### Features

- The HSM113WK 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
HSM113WK	S12	MPAK

### Pin Arrangement



### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

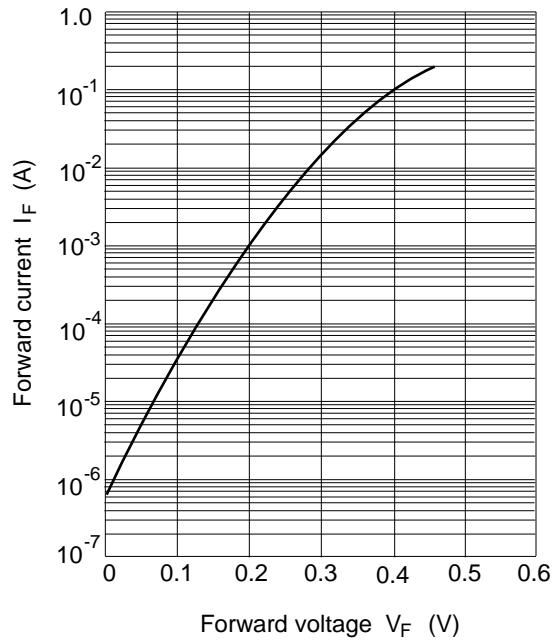
Item	Symbol	Value Pin 1-3	Value Pin 2-3	Unit
Peak reverse voltage	$V_{RM}$	20	20	V
Forward current	$I_F$	200	100	mA
Non-Repetitive peak forward surge current	$I_{FSM}^*$	2	0.6	A
Junction temperature	$T_j$	125	125	$^\circ\text{C}$
Storage temperature	$T_{Stg}$	-55 to +125	-55 to +125	$^\circ\text{C}$

\* 10msec, 1 pulse square wave

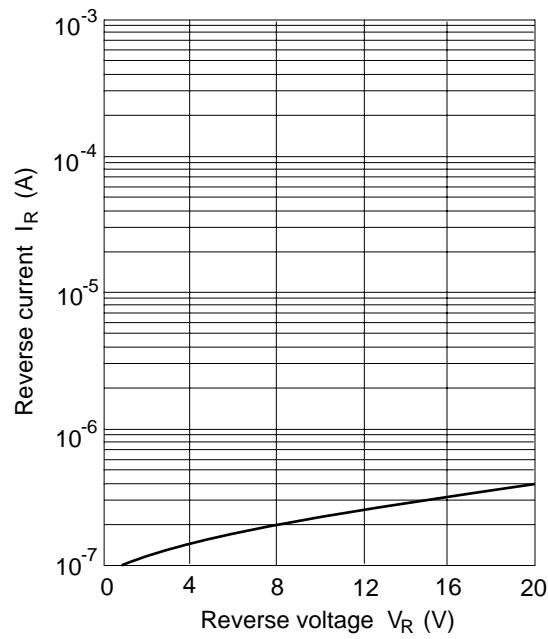
### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	Pin 1-3	—	0.35	V	$I_F = 10\text{mA}$
		Pin 2-3	1.2	—	1.8	
Forward voltage	$V_{F2}$	Pin 1-3	—	0.55	V	$I_F = 200\text{mA}$
		Pin 2-3	—	3.0		
Reverse current	$I_R$	Pin 1-3	—	10	$\mu\text{A}$	$V_R = 5\text{ V}$
		Pin 2-3	—	1.0		

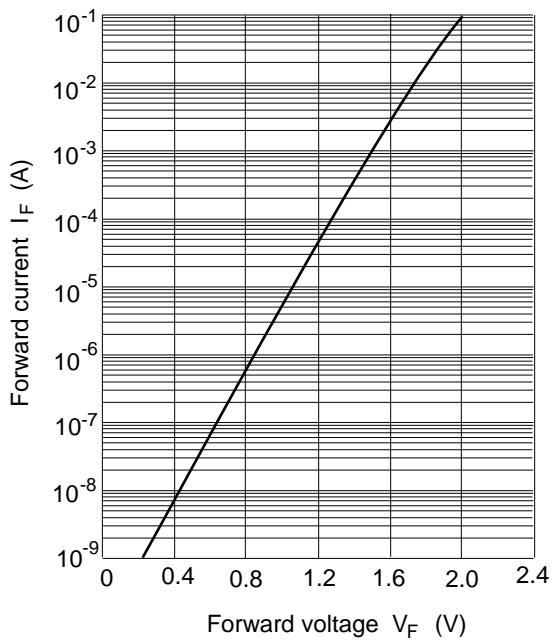
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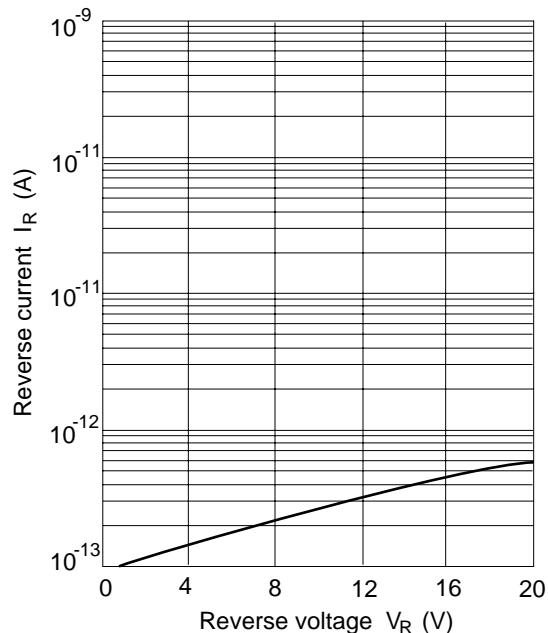
**Fig.1** Forward current Vs.  
Forward voltage  
(Pin1-3)



**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**

Unit: mm

