

## HSM107S

### Silicon Schottky Barrier Diode for System Protection

REJ03G0173-0700Z  
(Previous: ADE-208-058F)  
Rev.7.00  
Jan.28.2004

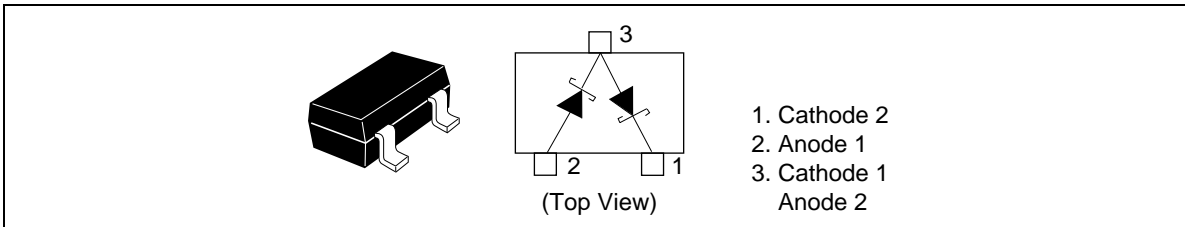
#### Features

- Low  $V_F$  and high efficiency.
- HSM107S which is interconnected in series configuration is designed for protection from not only external excessive voltage but also miss-operation on electric systems.
- MPAK Package is suitable for high density surface mounting and high speed assembly.

#### Ordering Information

Type No.	Laser Mark	Package Code
HSM107S	C5	MPAK

#### Pin Arrangement



**Absolute Maximum Ratings**

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V <sub>R</sub>	8	V
Peak forward current	I <sub>FM</sub>	0.1	A
Non-Repetitive peak forward surge current	I <sub>FSM</sub> * <sup>1</sup>	0.5	A
Average forward current	I <sub>O</sub> * <sup>2</sup>	50	mA
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>stg</sub>	-55 to +125	°C

Notes: 1. Rectangular wave, 10 ms  
2. Per one device

**Electrical Characteristics \*<sup>1</sup>**

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	V <sub>R</sub>	8	—	—	V	I <sub>R</sub> = 1.0 mA
Reverse current	I <sub>R</sub>	—	—	30	μA	V <sub>R</sub> = 5 V
Forward voltage	V <sub>F</sub>	—	—	0.3	V	I <sub>F</sub> = 10 mA
ESD Capability * <sup>2</sup>	—	100	—	—	V	C = 200 pF, Both forward and reverse direction 1 pulse

Notes: 1. Per one device  
2. Failure Criterion ; I<sub>R</sub> ≥ 60 μA at V<sub>R</sub> = 5 V

### Main Characteristic

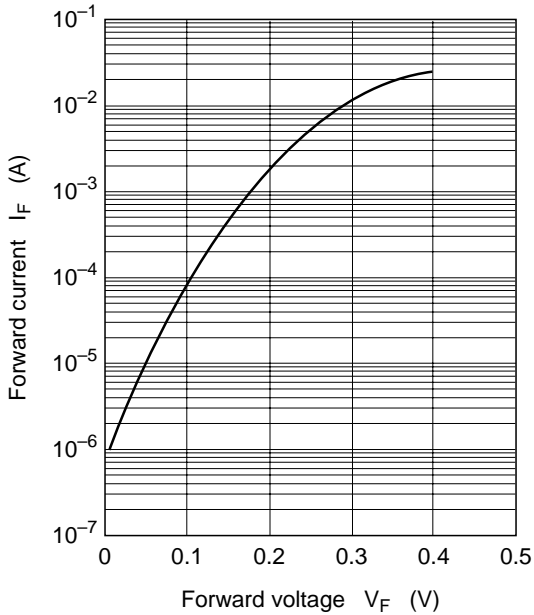


Fig.1 Forward current vs. Forward voltage

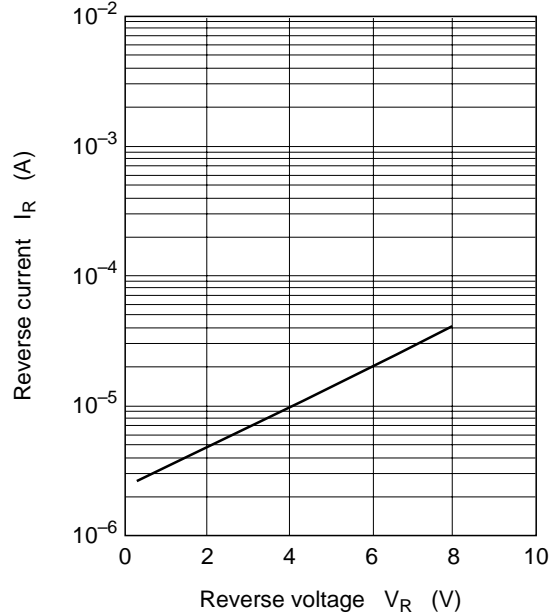


Fig.2 Reverse current vs. Reverse voltage

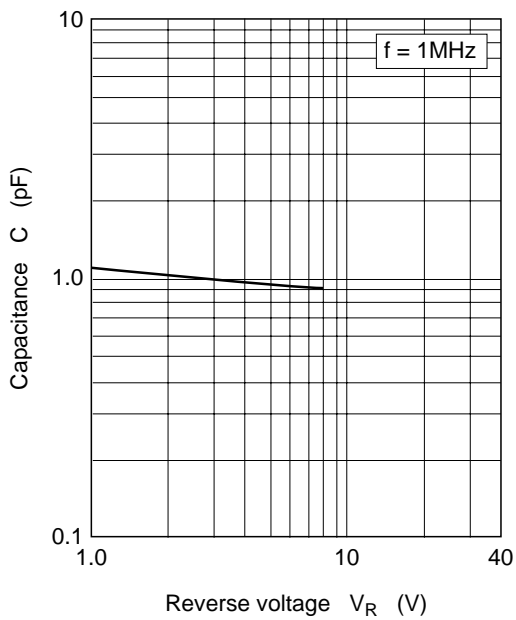
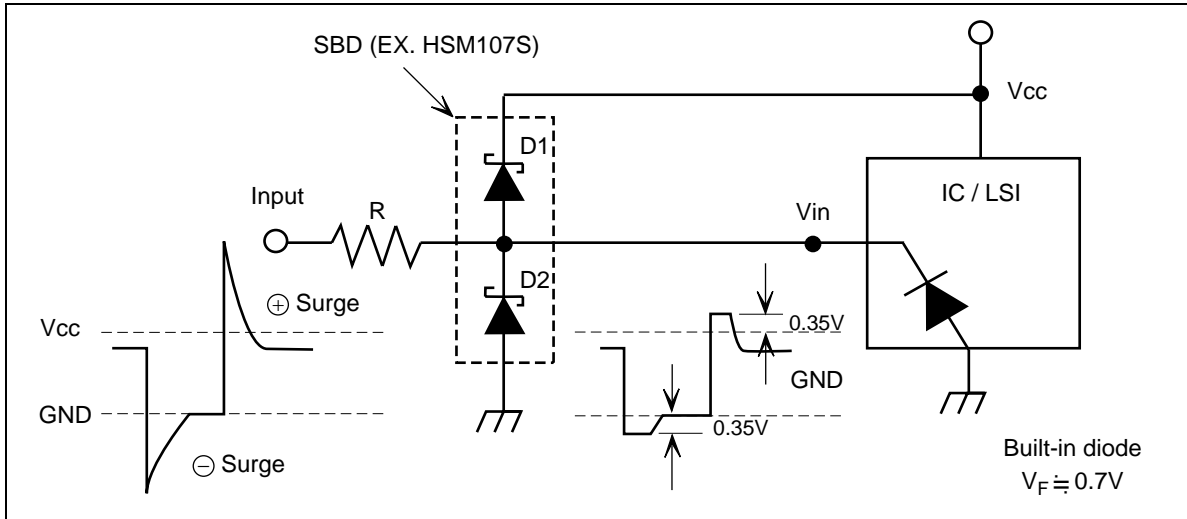


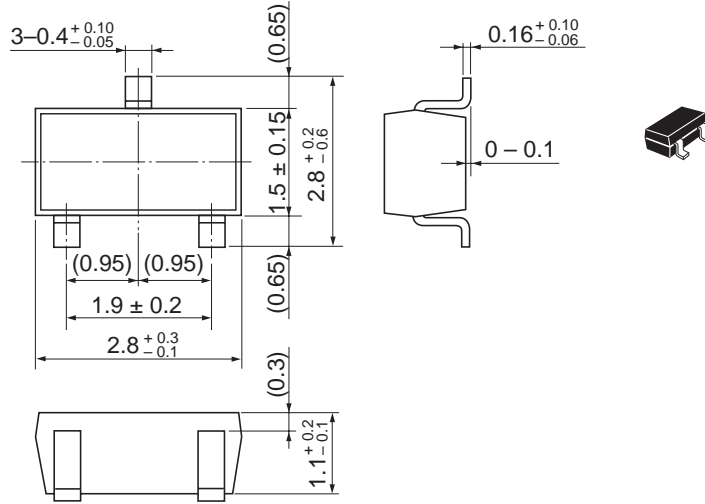
Fig.3 Capacitance vs. Reverse voltage

Example of application circuit



Package Dimensions

As of January, 2003  
Unit: mm



Package Code	MPAK
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.011 g

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**Keep safety first in your circuit designs!**

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