

## HSM83

### Silicon Epitaxial Planar Diode for High Voltage Switching

REJ03G0172-0500Z  
(Previous: ADE-208-091D)  
Rev.5.00  
Jan.13.2004

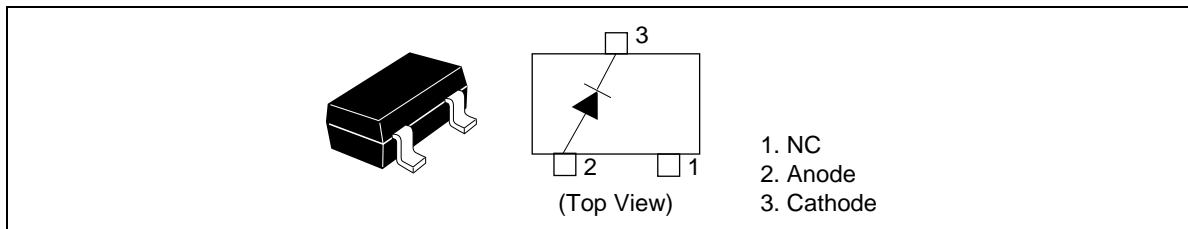
#### Features

- High reverse voltage. ( $V_R = 250V$ )
- MPAK package is suitable for high density surface mounting and high speed assembly.

#### Ordering Information

Type No.	Laser Mark	Package Code
HSM83	F7	MPAK

#### Pin Arrangement



**Absolute Maximum Ratings**

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V <sub>RM</sub>	300	V
Reverse voltage	V <sub>R</sub>	250	V
Peak forward current	I <sub>FM</sub>	300	mA
Non-Repetitive peak forward surge current	I <sub>FSM</sub> *1	2	A
Average rectified current	I <sub>O</sub>	100	mA
Junction temperature	T <sub>j</sub>	125	°C
Storage temperature	T <sub>stg</sub>	-55 to +125	°C

Note: 1. Value at duration of 10 ms.

**Electrical Characteristics**

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V <sub>F</sub>	—	—	1.2	V	I <sub>F</sub> = 100 mA
Reverse current	I <sub>R1</sub>	—	—	0.2	μA	V <sub>R</sub> = 250 V
	I <sub>R2</sub>	—	—	100		V <sub>R</sub> = 300 V
Capacitance	C	—	1.5	3.0	pF	V <sub>R</sub> = 0 V, f = 1 MHz
Reverse recovery time	t <sub>rr</sub>	—	—	100	ns	I <sub>F</sub> = I <sub>R</sub> = 30 mA, I <sub>rr</sub> = 3 mA, R <sub>L</sub> = 100 Ω

### Main Characteristics

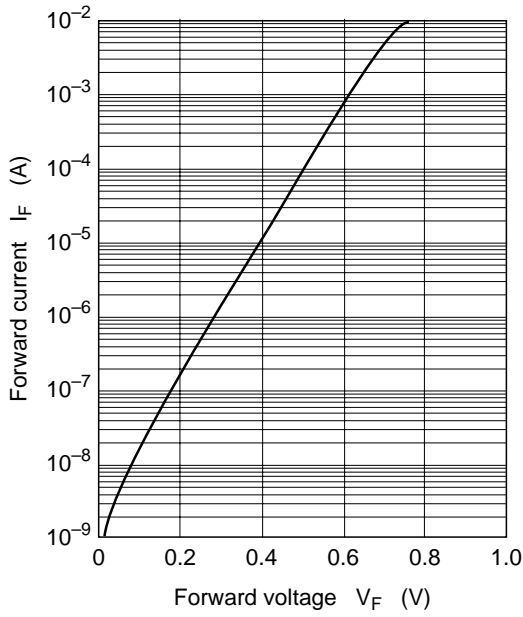


Fig.1 Forward current vs. Forward voltage

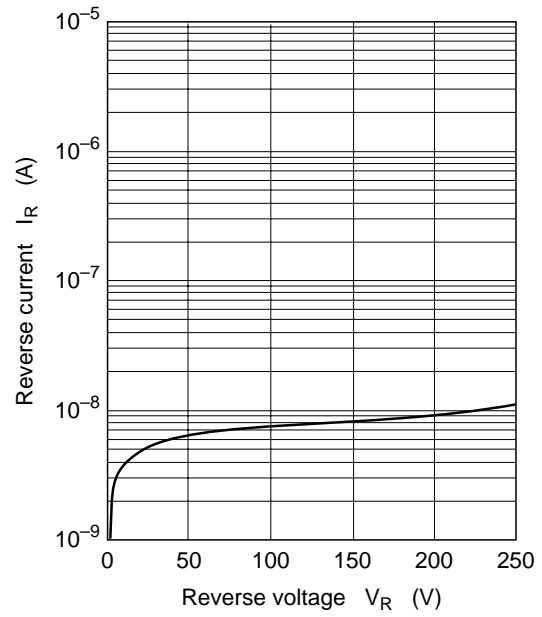


Fig.2 Reverse current vs. Reverse voltage

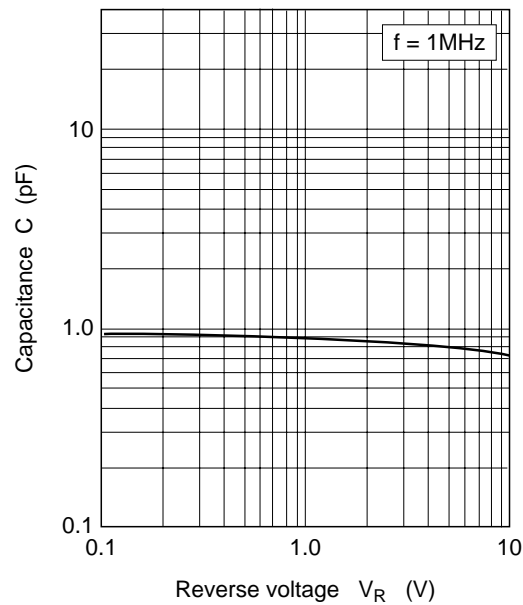
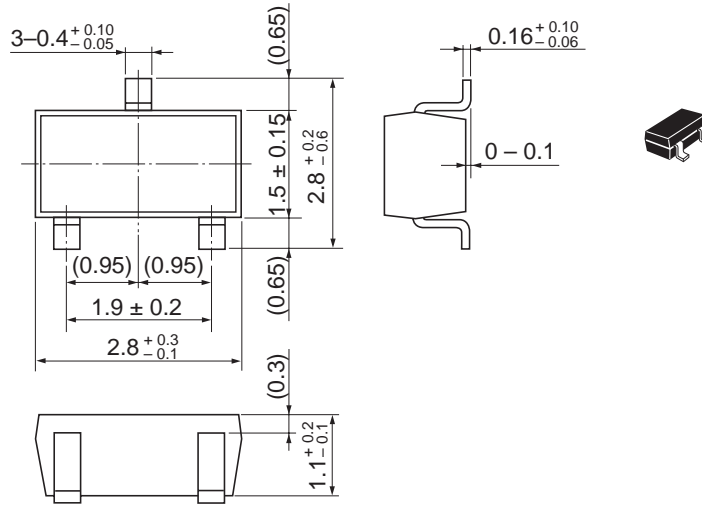


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

As of January, 2003  
Unit: mm



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

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