To all our customers

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Renesas Technology Corp.
Customer Support Dept.
April 1, 2003

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Keep safety first in your circuit designs!

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HSM123

Silicon Epitaxial Planar Diode for High Speed Switching

ADE-208-027F (Z)

Rev.6
Nov. 2002

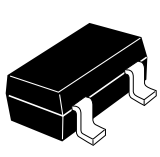
Features

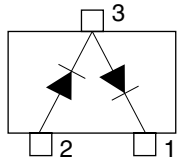
- Low capacitance, proof against high voltage.
- Fast recovery time.
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HSM123	A9	MPAK

Pin Arrangement





(Top View)

1. Cathode2
2. Anode1
3. Cathode1
   Anode2

Absolute Maximum Ratings *[1]

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Peak forward current	I_{FM}	300	mA
Non-Repetitive peak forward surge current	I_{FSM} *[2]	4	A
Average forward current	I_O	100	mA
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–55 to +125	°C

Notes: 1. Per one device.
2. Within 1 μs forward surge current.

Electrical Characteristics *

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	0.70	1.0	V	I_F = 10 mA
	V_{F2}	—	0.79	1.0		I_F = 50 mA
	V_{F3}	—	0.85	1.2		I_F = 100 mA
Reverse current	I_R	—	—	0.1	μA	V_R = 80 V
Capacitance	C	—	1.0	4.0	pF	V_R = 0 V, f = 1 MHz
Reverse recovery time	t_{rr}	—	—	3.0	ns	I_F = 10 mA, V_R = 6 V, R_L = 50 Ω

Note: Per one device.

Main Characteristic

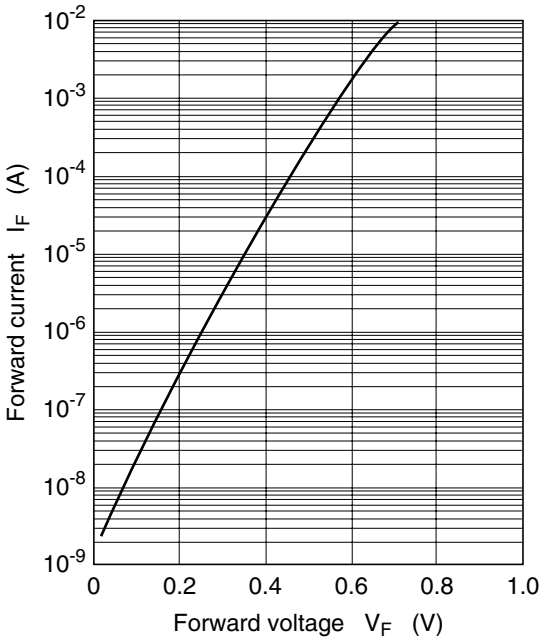


Fig.1 Forward Current vs. Forward Voltage

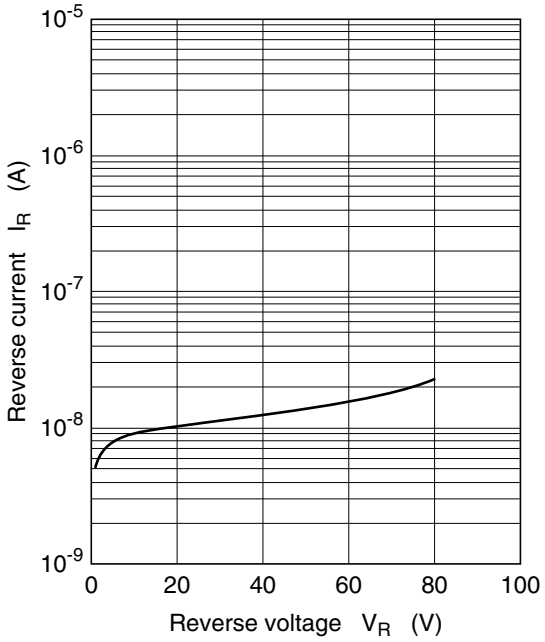


Fig.2 Reverse Current vs. Reverse Voltage

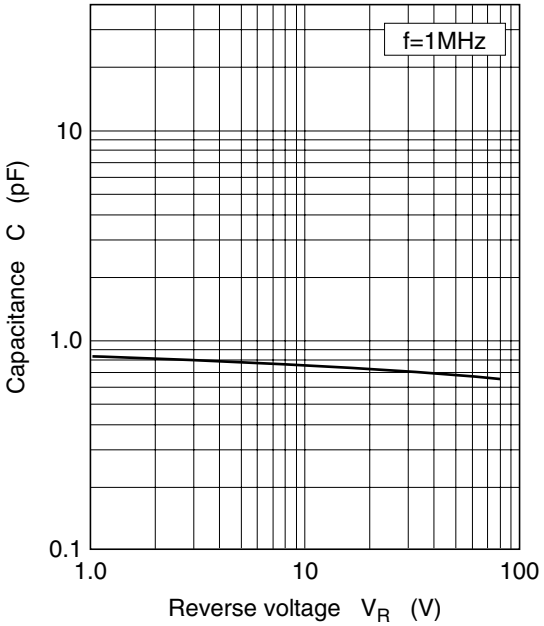
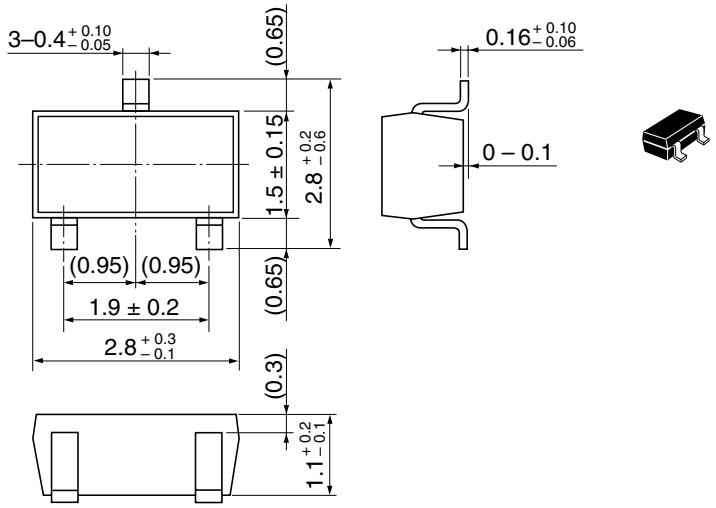


Fig.3 Capacitance vs. Reverse Voltage

Package Dimensions

As of July, 2002

Unit: mm



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

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