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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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Remember to give due consideration to safety when making your circuit designs, with appropriate measures such as (i) placement of substitutive, auxiliary circuits, (ii) use of nonflammable material or (iii) prevention against any malfunction or mishap.

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HVM14

Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator



ADE-208-082C (Z)

Rev. 3
May 1993

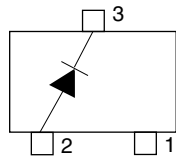
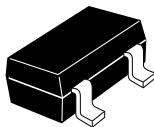
Features

- Low forward resistance. ($r_f = 7.0\Omega_{\text{max}}$)
- Low capacitance. ($C = 0.25\text{pF}_{\text{typ}}$)
- MPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HVM14	H5	MPAK

Pin Arrangement



(Top View)

- 1 NC
- 2 Anode
- 3 Cathode

Absolute Maximum Ratings

(Ta = 25°C)

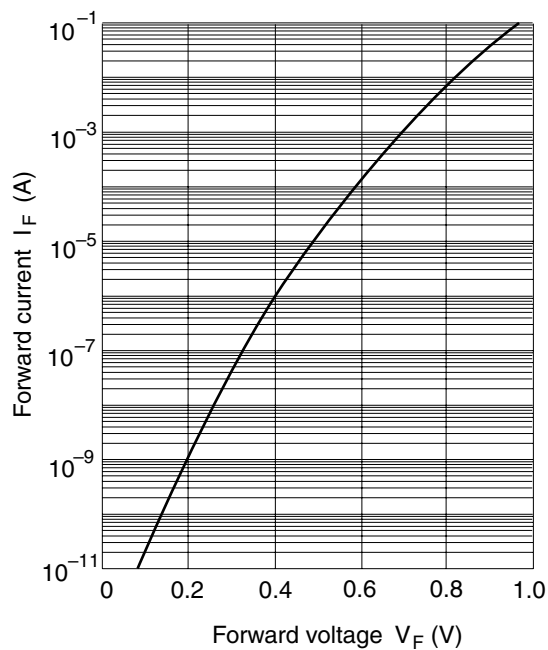
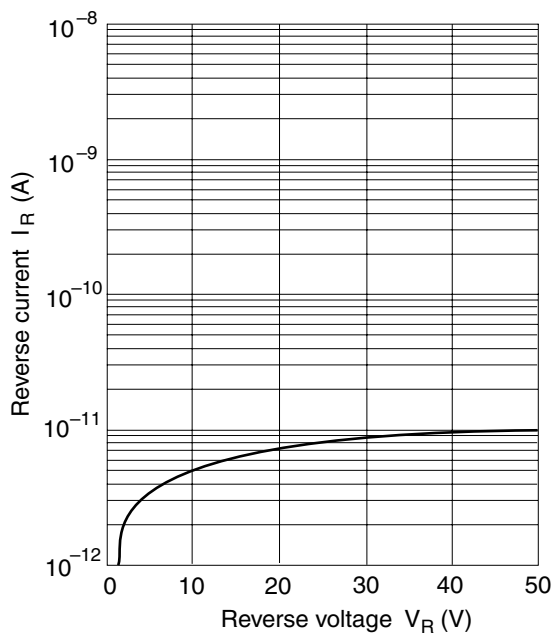
Item	Symbol	Value	Unit
Reverse voltage	V_R	50	V
Forward current	I_F	50	mA
Power dissipation	Pd	100	mW
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.0	V	$I_F = 50\text{mA}$
Reverse current	I_R	—	—	100	nA	$V_R = 50\text{V}$
Capacitance	C	—	0.25	—	pF	$V_R = 50\text{V}$, $f = 1\text{MHz}$
Forward resistance	r_f	—	—	7.0	Ω	$I_F = 10\text{mA}$, $f = 100\text{MHz}$
ESD-Capability	—	200	—	—	V	*C = 200pF, Both forward and reverse direction 1 pulse.

Note: Failure criterion; $I_R \geq 200\text{nA}$ at $V_R = 50\text{V}$

**Fig.1 Forward current Vs. Forward voltage****Fig.2 Reverse current Vs. Reverse voltage**

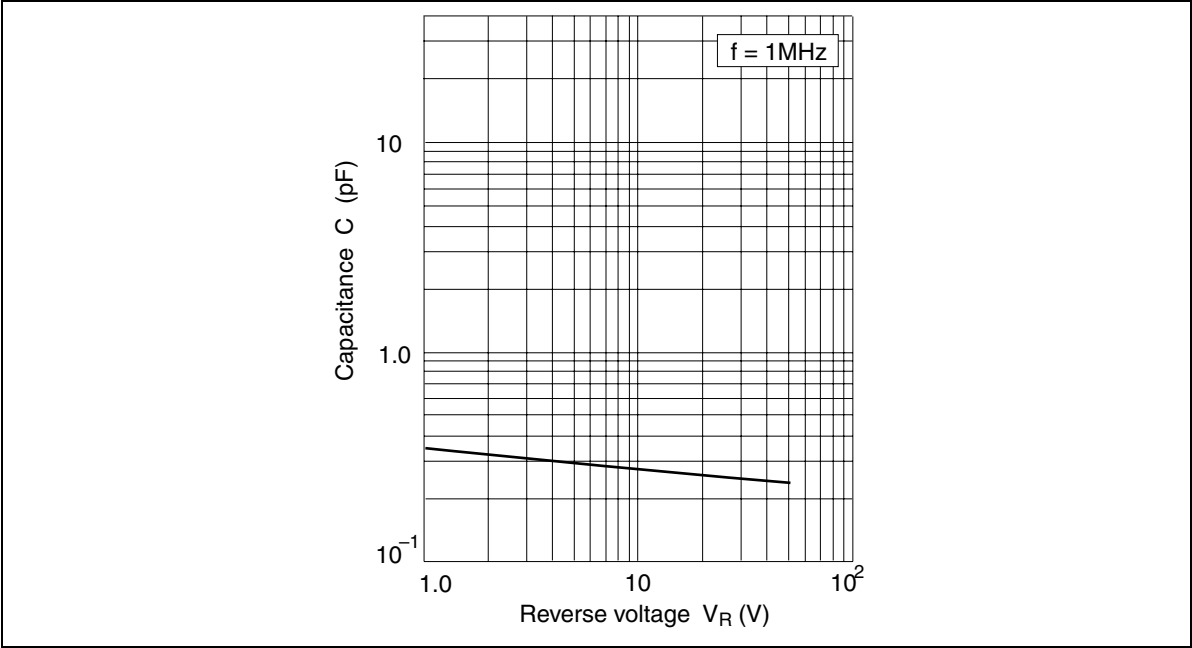


Fig.3 Capacitance Vs. Reverse voltage

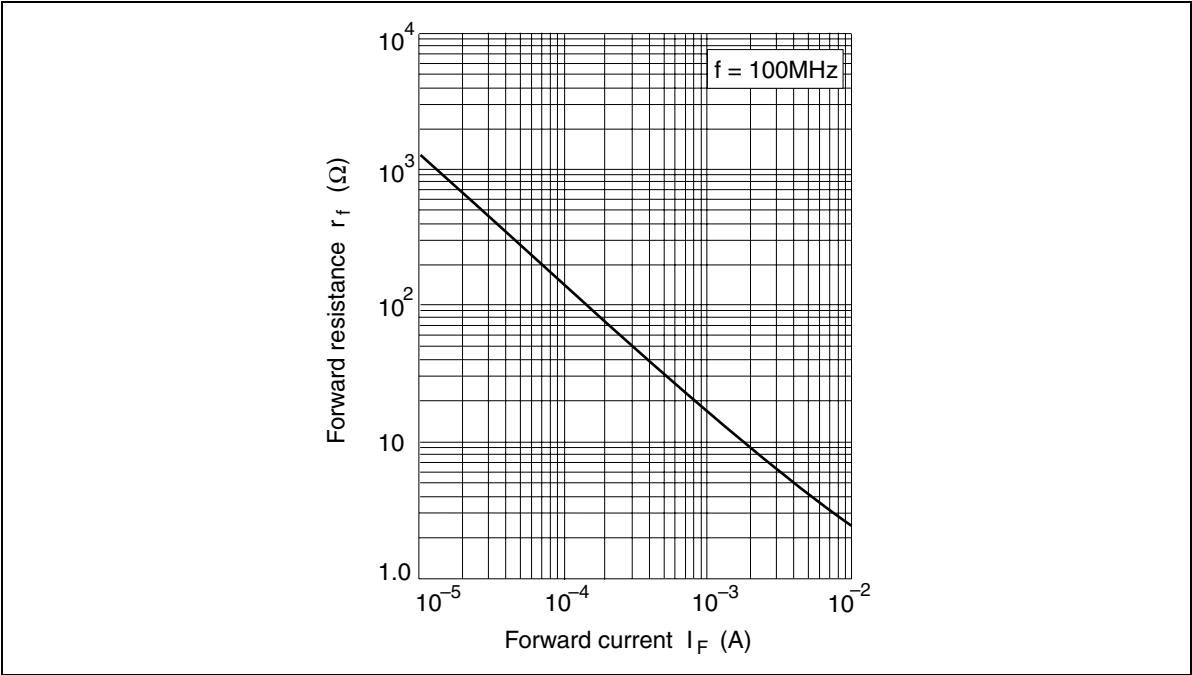
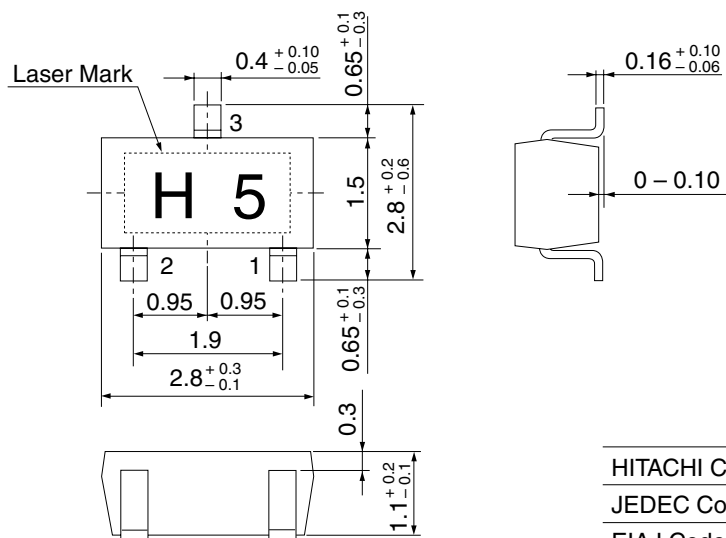


Fig.4 Forward resistance Vs. Forward current

Package Dimensions

Unit: mm



- 1 NC
2 Anode
3 Cathode

HITACHI Code	MPAK(1)
JEDEC Code	—
EIAJ Code	SC-59A
Weight (g)	0.011

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