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

Cautions

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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HVM14SR

Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator



ADE-208-084C(Z)

Rev. 3
Feb. 1999

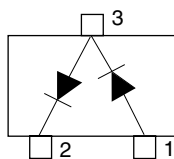
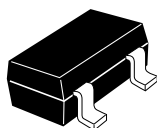
Features

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

Ordering Information

Type No.	Laser Mark	Package Code
HVM14SR	H7	MPAK

Pin Arrangement



(Top View)

- 1 Anode 1
- 2 Cathode 2
- 3 Cathode 1
Anode 2

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	50	V
Forward current	I_F	50	mA
Power dissipation	P_d^{*1}	100	mW
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55to+125	°C

Note: 1. Two device total.

Electrical Characteristics^{*2}

(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 MHz
Forward resistance	r_f	—	—	7	Ω	$I_F = 10 \text{ mA}$, f = 100 MHz
ESD-Capability ^{*1}	—	200	—	—	V	C=200pF, Both forward and reverse direction 1 pulse

Note: 1. Failure criterion ; $I_R \geq 200 \text{ nA}$ at $V_R = 50 \text{ V}$

Note: 2. Per one device.

Main Characteristic

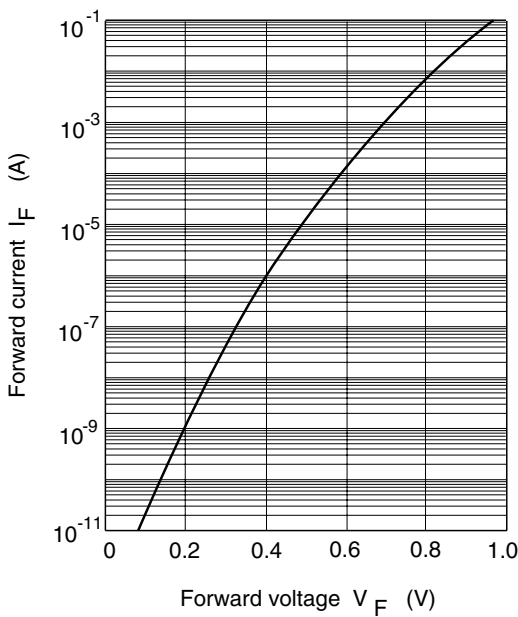


Fig.1 Forward current Vs. Forward voltage

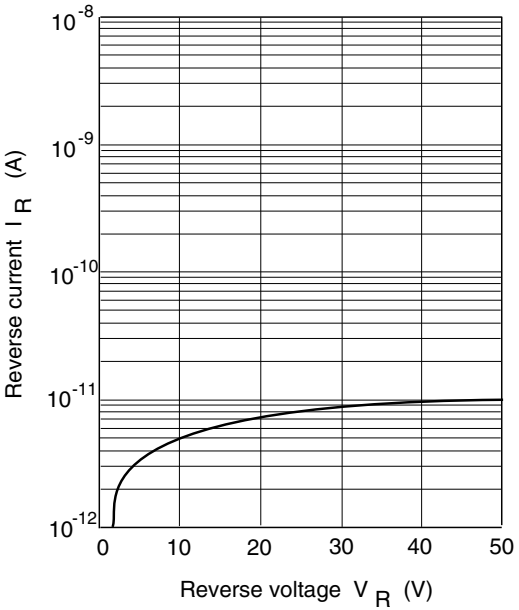


Fig.2 Reverse current Vs. Reverse voltage

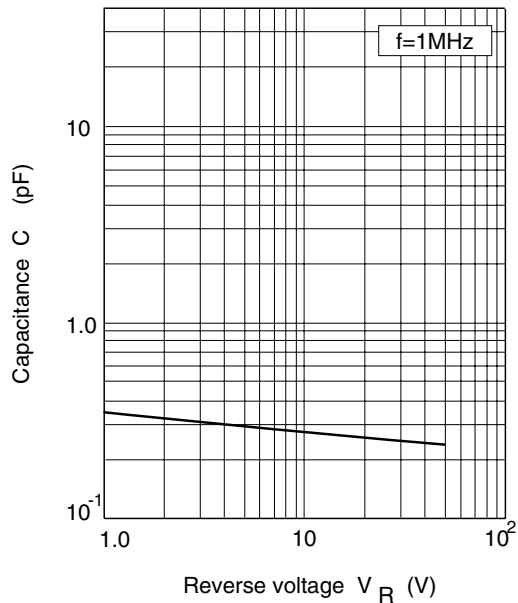


Fig.3 Capacitance Vs. Reverse voltage

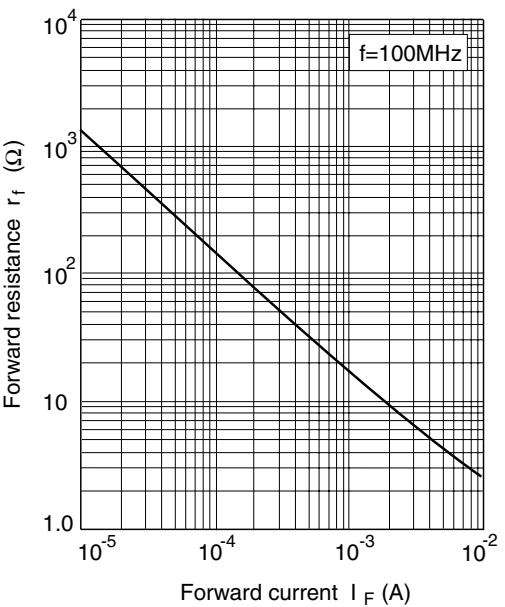
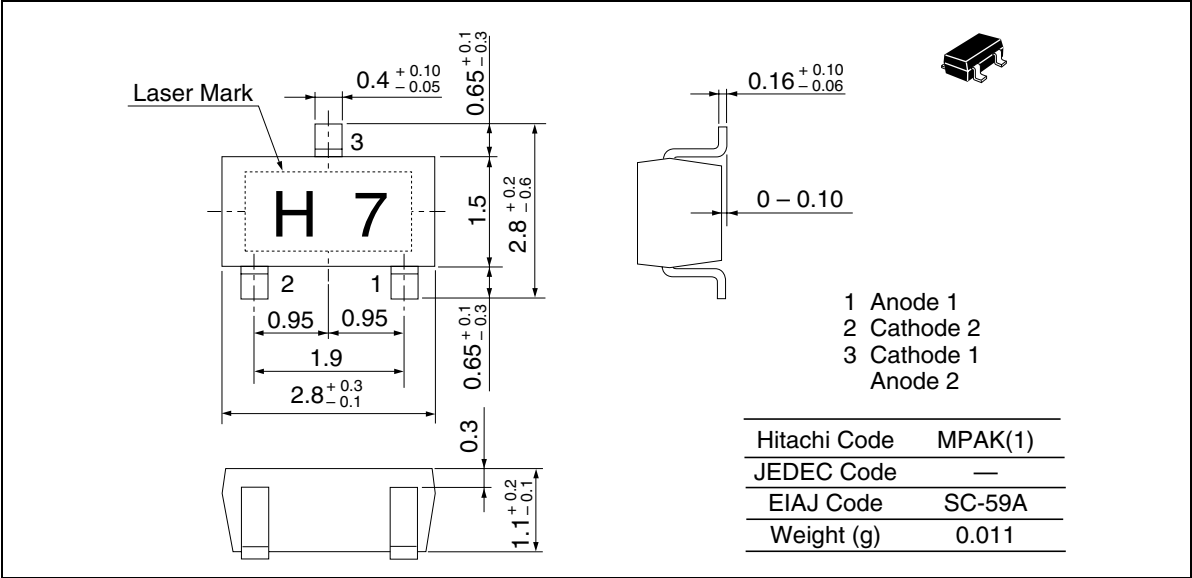


Fig.4 Forward resistance Vs. Forward current

Package Dimensions

Unit : mm



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