

HVM14SR

Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator

HITACHI

ADE-208-084C(Z)
Rev.3
Feb.1999

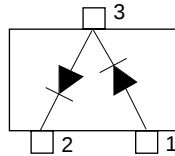
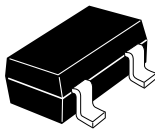
Features

- 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

Outline



(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	T_j	125	°C
Storage temperature	T_{stg}	-55to+125	°C

Note: 1. Two device total.

Electrical Characteristics (Ta = 25°C) ^{*2}

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	Ω	$I_F = 10\text{ mA}$, $f = 100\text{ MHz}$
ESD-Capability ^{*1}	—	200	—	—	V	$C=200\text{ pF}$, 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

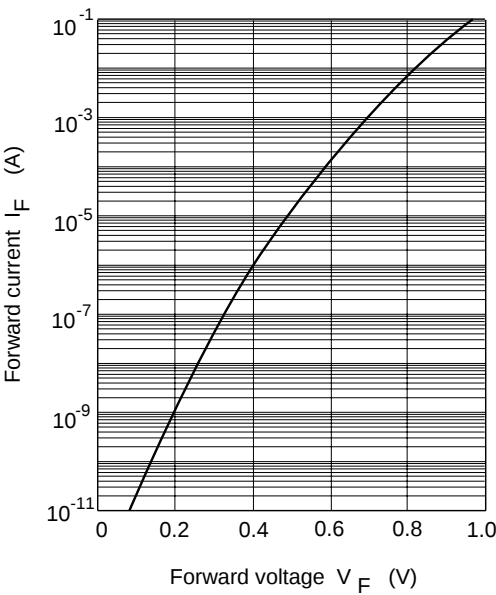


Fig.1 Forward current Vs. Forward voltage

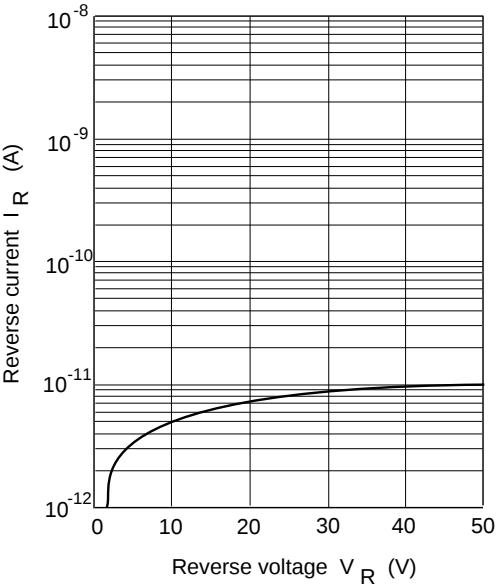


Fig.2 Reverse current Vs. Reverse voltage

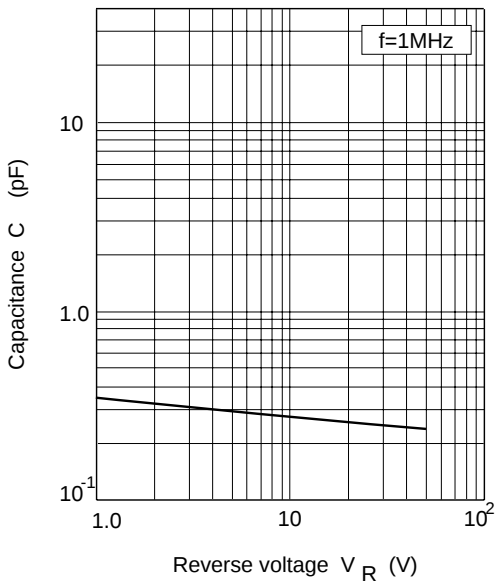


Fig.3 Capacitance Vs. Reverse voltage

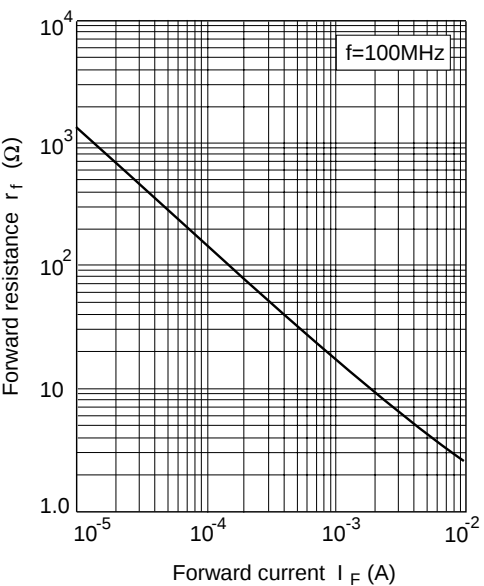
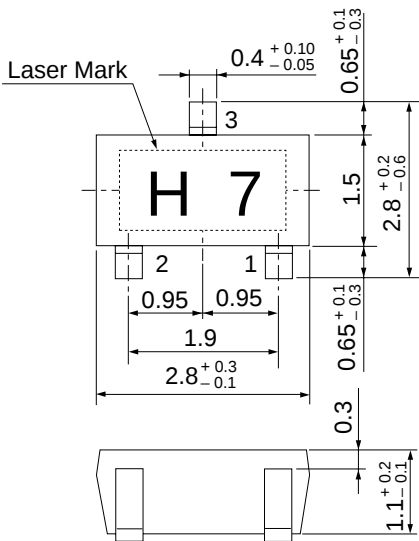


Fig.4 Forward resistance Vs. Forward current

Package Dimensions

Unit : mm



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

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

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