

HVC190

Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator

REJ03G0441-0100
(Previous: ADE-208-1595)
Rev.1.00
Dec 22, 2004

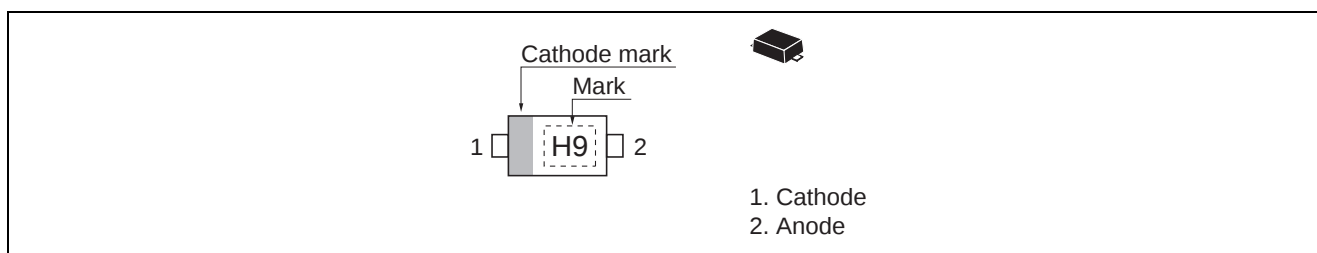
Features

- Low capacitance. ($C = 0.35$ pF max)
- Low forward resistance. ($r_f = 3.0 \Omega$ typ)
- Ultra small Flat Lead Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC190	H9	UFP

Pin Arrangement



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	150	mW
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-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	—	—	0.35	pF	$V_R = 50 \text{ V}$, $f = 1 \text{ MHz}$
Forward resistance	r_f	—	3.0	5.0	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 $V_R = 50 \text{ V}$

Main Characteristic

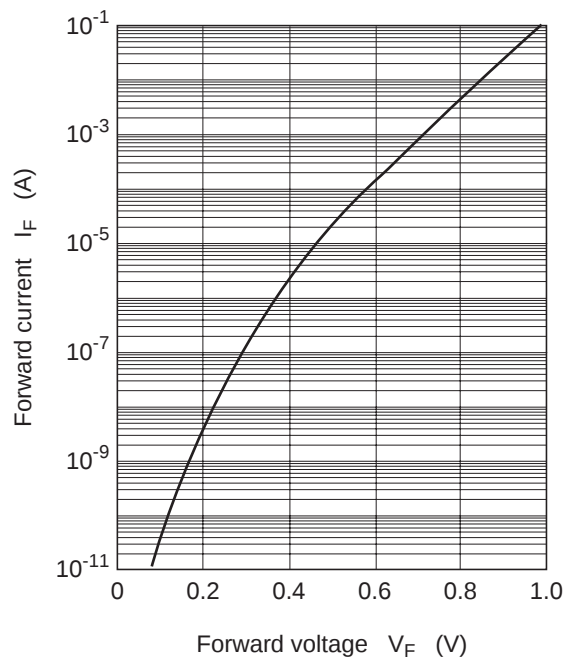


Fig.1 Forward current vs. Forward voltage

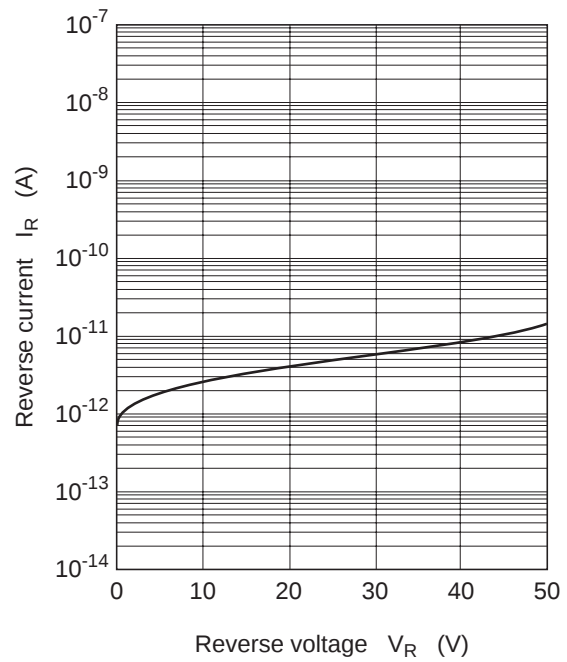


Fig.2 Reverse current vs. Reverse voltage

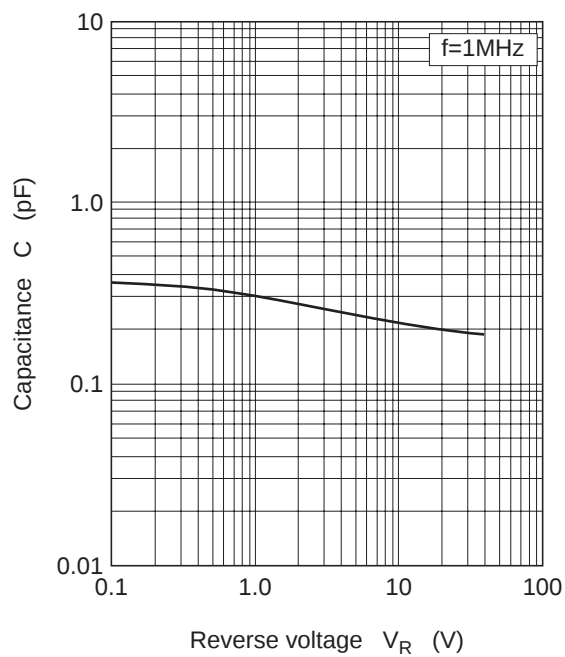


Fig.3 Capacitance vs. Reverse voltage

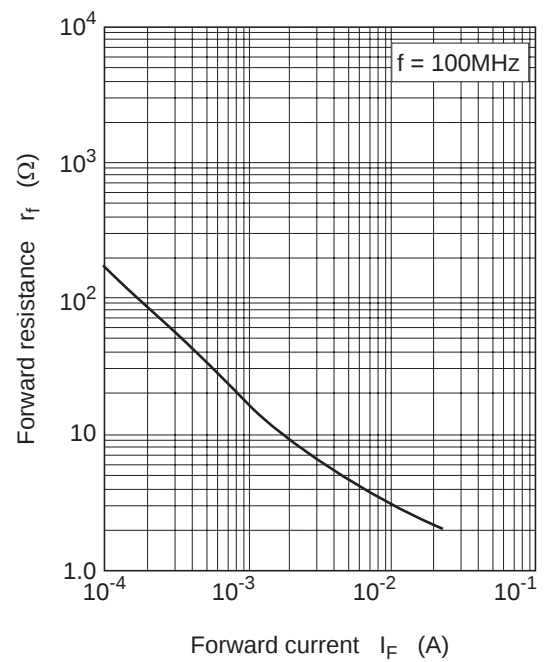
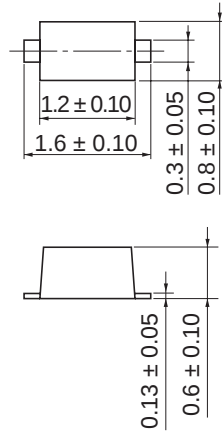


Fig.4 Forward resistance vs. Forward current

Package Dimensions

As of January, 2003
Unit: mm



Package Code	UFP
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.0016 g

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