HVB190S

Silicon Epitaxial Planar PIN Diode for High Frequency Attenuator

REJ03G0440-0100
(Previous: ADE-208-1597)
Rev.1.00
Dec 20, 2004

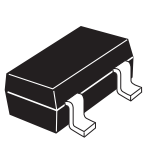
Features

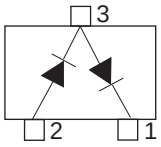
- Low capacitance. (C = 0.35 pF max)
- Low forward resistance. (rf = 3.0 Ω typ)
- CMPAK package is suitable for high density surface mounting and high speed assembly.

Ordering Information

Type No.	Laser Mark	Package Code
HVB190S	H9	CMPAK

Pin Arrangement





(Top View)

1. Cathode
2. Anode
3. Cathode
   Anode

Absolute Maximum Ratings *1

(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

Note: 1. Absolute maximum ratings are described each unit separately.

Electrical Characteristics*1

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.0	V	I_F = 50 mA
Reverse current	I_R	—	—	100	nA	V_R = 50 V
Capacitance	C	—	—	0.35	pF	V_R = 50 V, f = 1 MHz
Forward resistance	r_f	—	3.0	5.0	Ω	I_F = 10 mA, f = 100 MHz
ESD-Capability *2	—	200	—	—	V	C = 200 pF, Both forward and reverse direction 1 pulse

Notes: 1. Per one device.
2. Failure criterion; $I_R \geq 200$ nA at V_R = 50 V

Main Characteristic

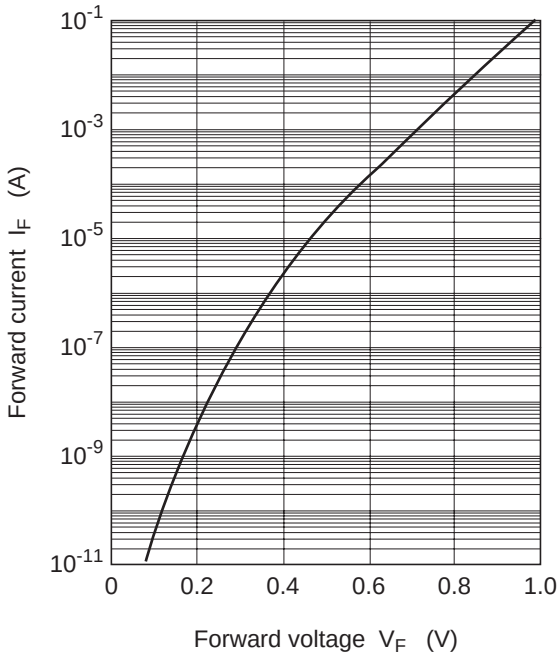


Fig.1 Forward current vs. Forward voltage

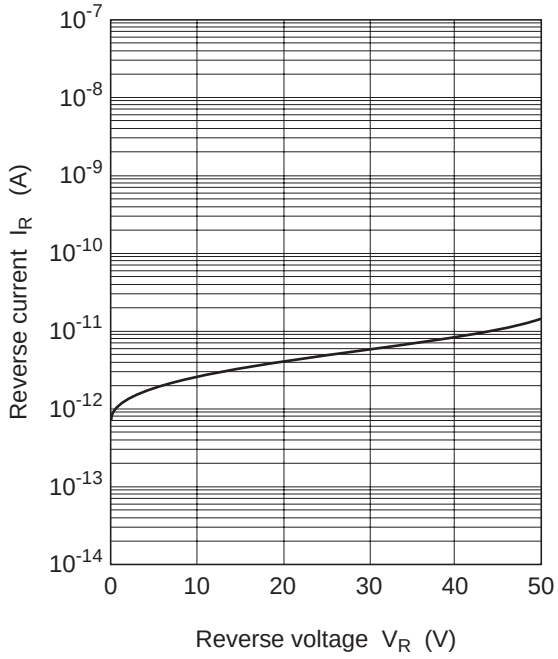


Fig.2 Reverse current vs. Reverse voltage

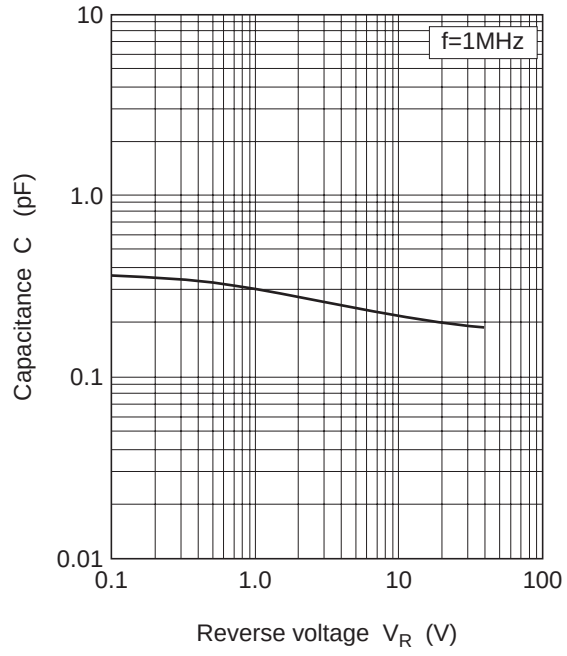


Fig.3 Capacitance vs. Reverse voltage

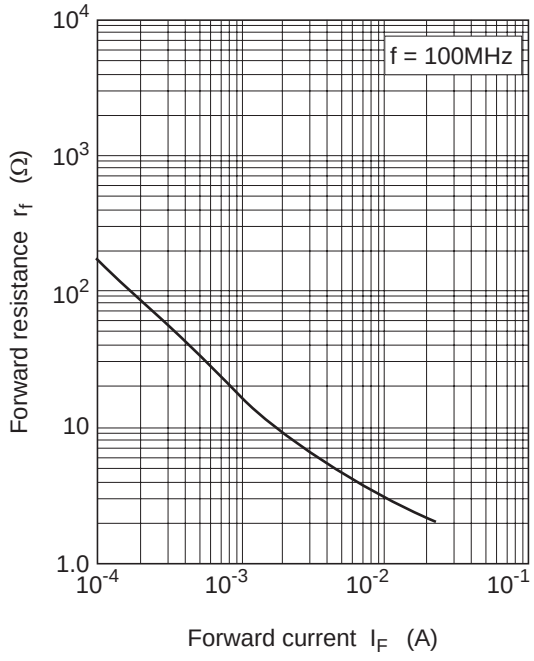
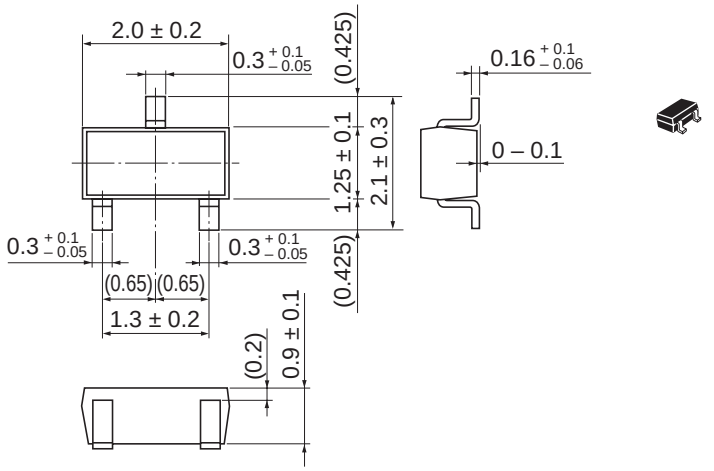


Fig.4 Forward resistance vs. Forward current

Package Dimensions

As of January, 2003

Unit: mm



Package Code	CMPAK
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.006 g

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Colophon .2.0