

HVC142A

Silicon Epitaxial Planar Pin Diode for Antenna Switching

REJ03G0422-0100

(Previous: ADE-208-1588)

Rev.1.00

Nov 26, 2004

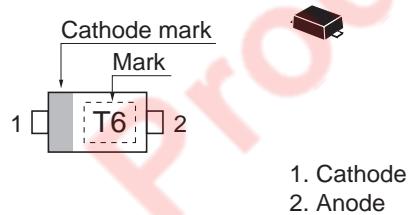
Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ($C = 0.35 \text{ pF}$ max)
- Low forward resistance. ($r_f = 1.3 \Omega$ max)
- Ultra small Flat Lead Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HVC142A	T6	UFP

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Reverse voltage	V _R	30	V
Forward current	I _F	100	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
Reverse current	I _R	—	—	100	nA	V _R = 30 V
Forward voltage	V _F	—	—	1.0	V	I _F = 10 mA
Capacitance	C	—	—	0.35	pF	V _R = 1 V, f = 1 MHz
Forward resistance	r _f	—	—	1.3	Ω	I _F = 10 mA, f = 100 MHz
ESD-Capability * ¹	—	100	—	—	V	C = 200 pF, R = 0 Ω, Both forward and reverse direction 1 pulse.

Note: 1. Failure criterion: I_R > 100 nA at V_R = 30 V

Main Characteristic

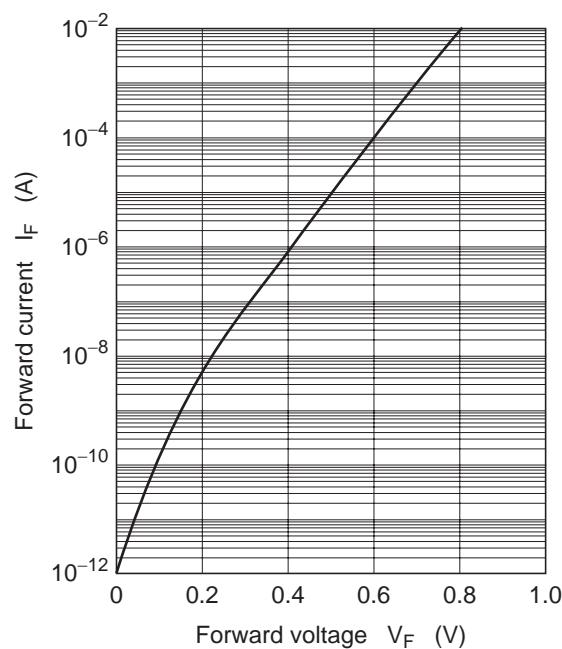


Fig.1 Forward current vs. Forward voltage

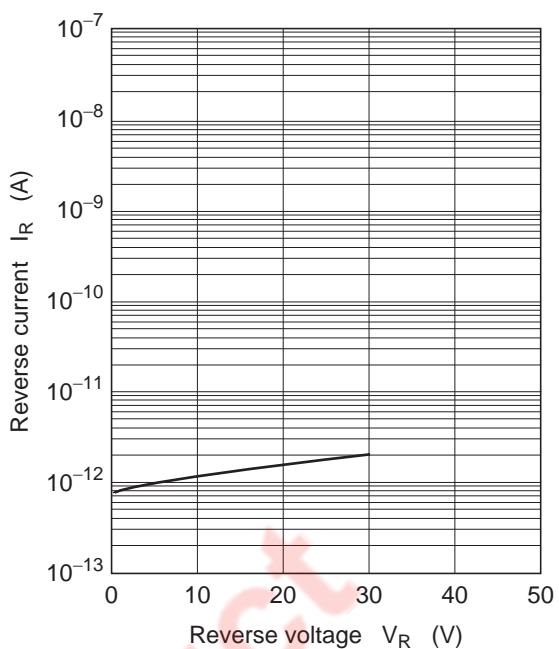


Fig.2 Reverse current vs. Reverse voltage

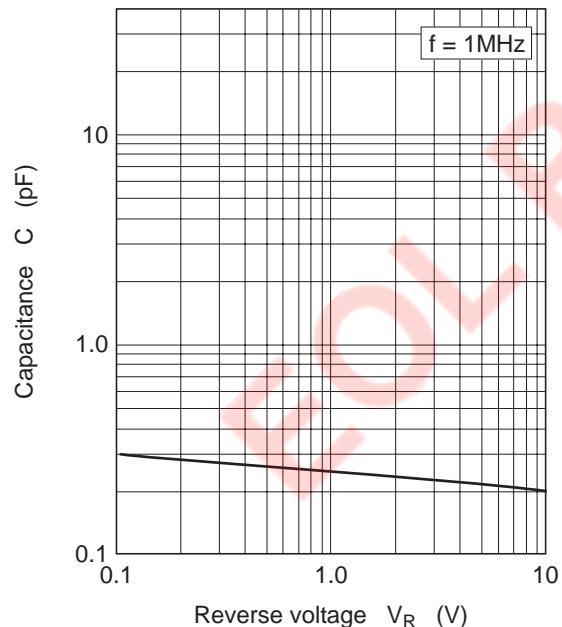


Fig.3 Capacitance vs. Reverse voltage

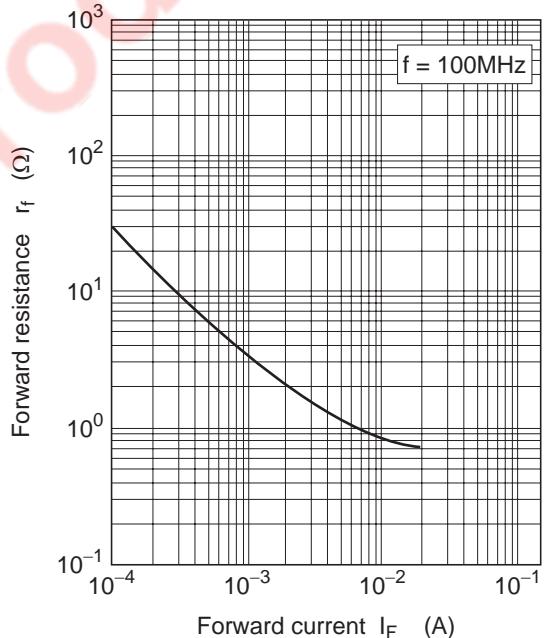


Fig.4 Forward resistance vs. Forward current

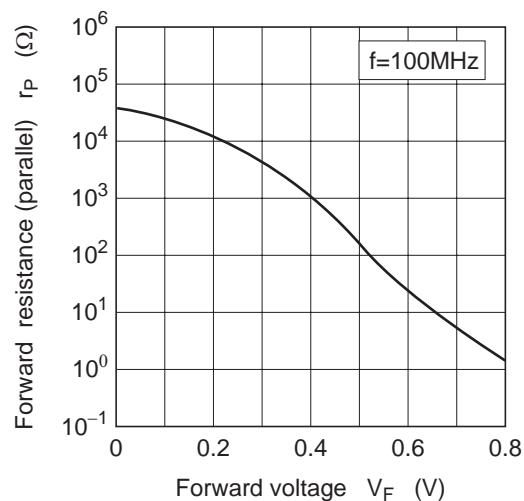
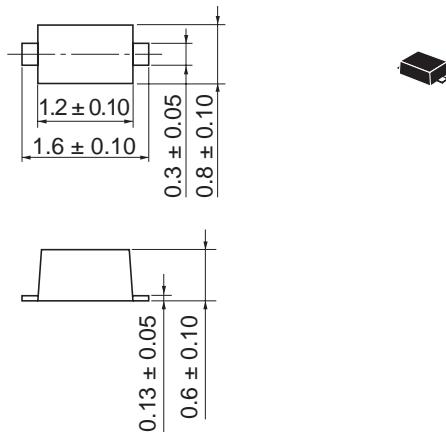


Fig.5 Forward resistance (parallel) vs. Forward voltage

Package Dimensions

As of January, 2003
Unit: mm



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

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