

# HSC277

## Silicon Epitaxial Planar Diode for UHF/VHF tuner Band Switch

# HITACHI

 Rev. 0  
 Nov. 1995

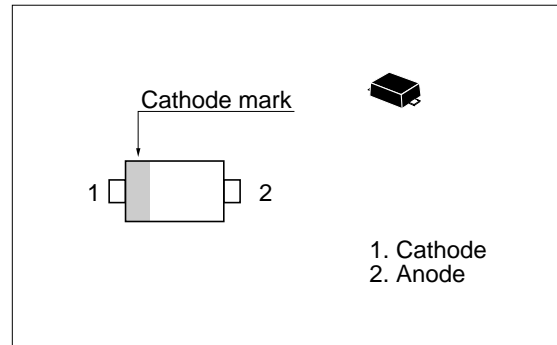
### Features

- Low forward resistance. ( $r_f=0.7\Omega$  max)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

### Ordering Information

Type No.	Cathode Mark	Package Code
HSC277	Laser	UFP

### Outline

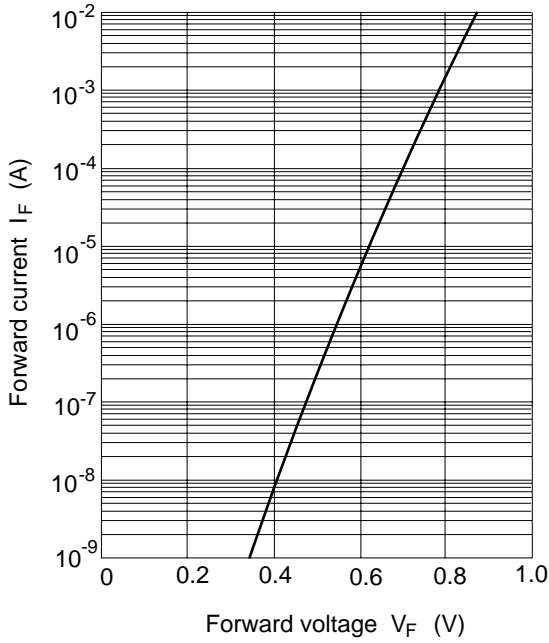


### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

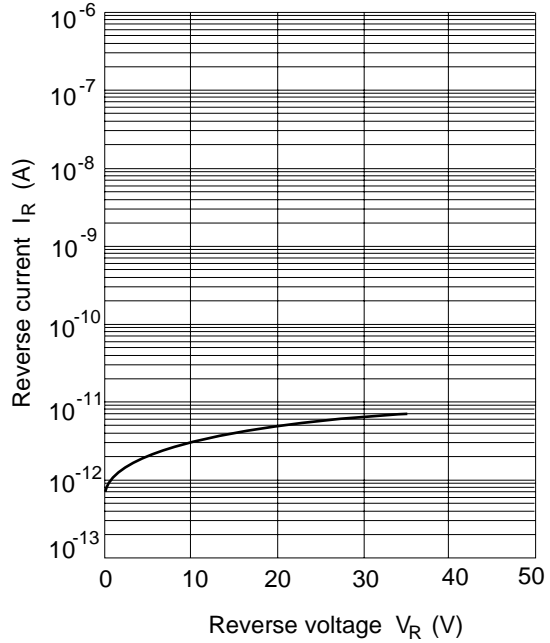
Item	Symbol	Value	Unit
Reverse voltage	$V_R$	35	V
Junction temperature	$T_j$	125	$^\circ\text{C}$
Power dissipation	$P_d$	150	mW
Operation temperature	$T_{opr}$	-20 to + 60	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-45 to +125	$^\circ\text{C}$

### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ )

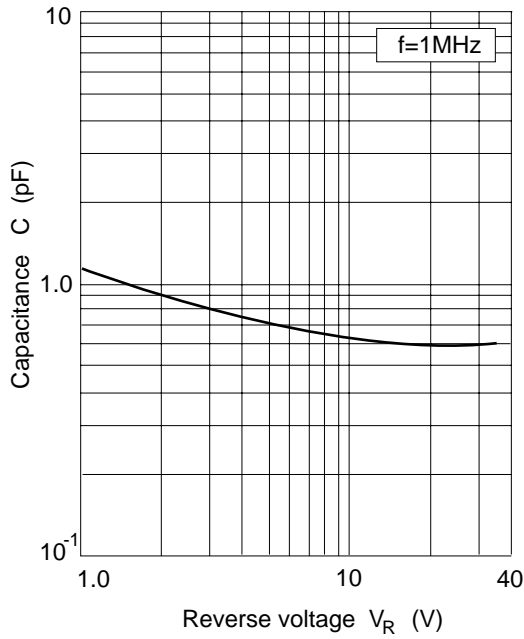
Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse voltage	$V_R$	35	—	—	V	$I_R = 10 \mu\text{A}$
Reverse current	$I_R$	—	—	50	nA	$V_R = 25 \text{ V}$
Forward voltage	$V_F$	—	—	1.0	V	$I_F = 10 \text{ mA}$
Capacitance	C	—	—	1.2	pF	$V_R = 6 \text{ V}$ , $f = 1 \text{ MHz}$
Forward resistance	$r_f$	—	—	0.7	$\Omega$	$I_F = 2 \text{ mA}$ , $f = 100 \text{ MHz}$



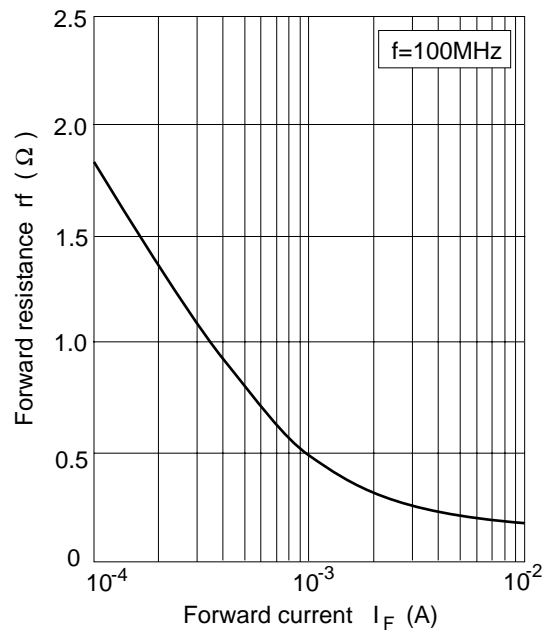
**Fig.1 Forward current Vs. Forward voltage**



**Fig.2 Reverse current Vs. Reverse voltage**



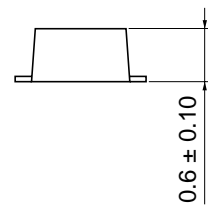
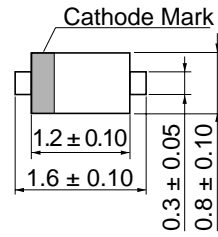
**Fig.3 Capacitance Vs. Reverse voltage**



**Fig.4 Forward resistance Vs. Forward current**

### Package Dimensions

Unit: mm



- 1 Cathode
- 2 Anode

HITACHI Code	UFP
JEDEC Code	—
EIAJ Code	SC-79
Weight (g)	0.0016