

HSC119

Silicon Epitaxial Planar Diode for High Speed Switching

HITACHI

ADE-208-615 (Z)
Rev 0
Apr. 1998

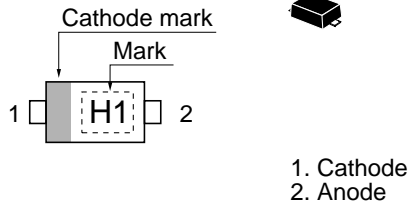
Features

- Low capacitance. ($C=2.0\text{pF}$ max)
- Short reverse recovery time. ($t_{rr}=3.0\text{ns}$ max)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

Ordering Information

Type No.	Laser Mark	Package Code
HSC119	H1	UFP

Outline



Absolute Maximum Ratings (Ta = 25°C)

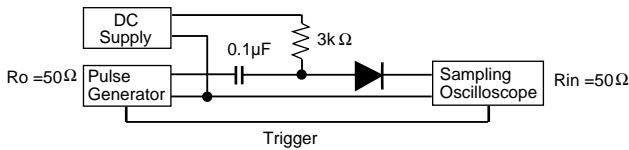
Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Average forward current	I_O	100	mA
Peak rectified current	I_{FM}	300	mA
Non-Repetitive peak forward surge current	I_{FSM}^{*1}	4	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

Note 1. Within 1μs forward surge current.

Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_{F1}	—	—	0.8	V	$I_F = 10 \text{ mA}$
	V_{F2}	—	—	1.2		$I_F = 100 \text{ mA}$
Reverse current	I_R	—	—	0.1	μA	$V_R = 80\text{V}$
Capacitance	C	—	—	2.0	pF	$V_R = 0\text{V}, f = 1 \text{ MHz}$
Reverse recovery time ^{*1}	t_{rr}	—	—	3.0	ns	$I_F = 10 \text{ mA}, V_R = 6\text{V}, R_L = 50\Omega$

Notes 1. Reverse recovery time test circuit



Main Characteristic

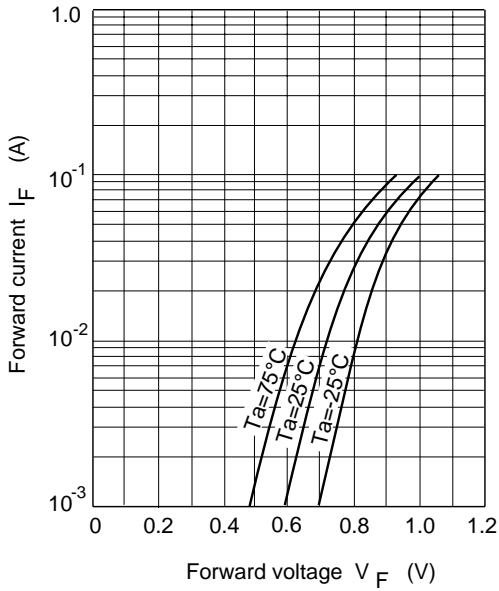


Fig.1 Forward current Vs. Forward voltage

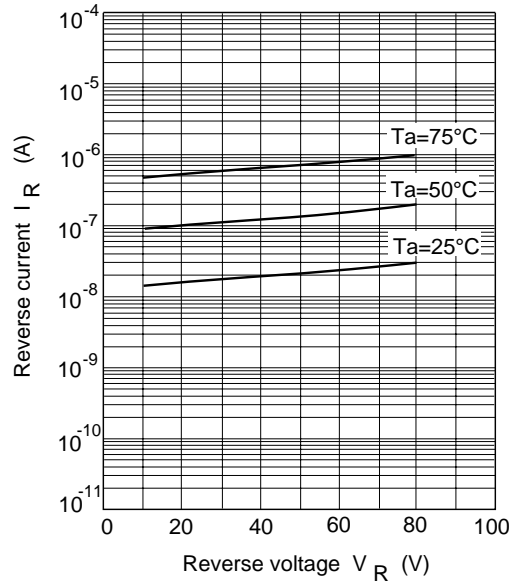


Fig.2 Reverse current Vs. Reverse voltage

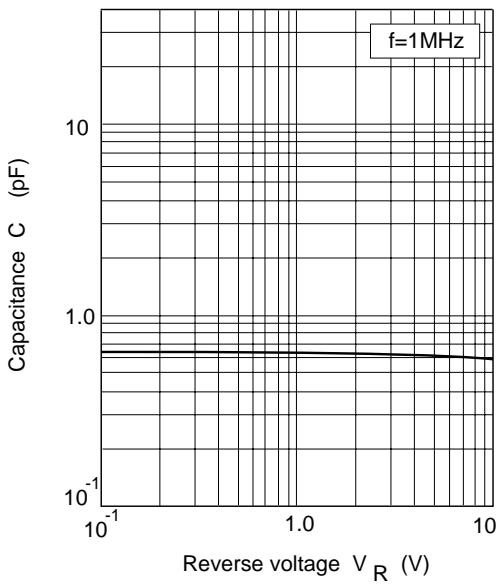
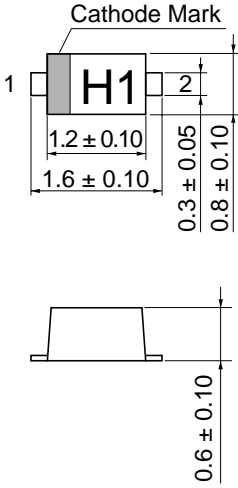


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit : mm



1. Cathode
2. Anode

Hitachi Code	<i>UFP</i>
JEDECCode	—
EIAJCode	SC-79
Weight(g)	0.0016

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