

## HSC119

### Silicon Epitaxial Planar Diode for High Speed Switching

REJ03G0188-0100Z  
(Previous: ADE-208-615)  
Rev.1.00  
Mar.22.2004

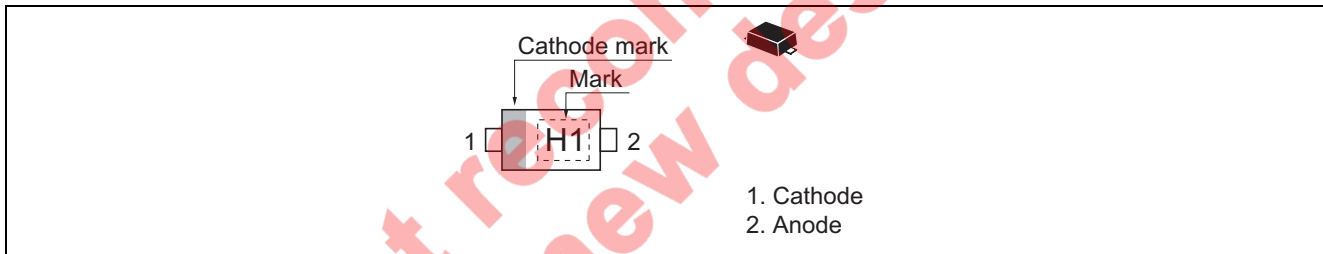
#### Features

- 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

#### Pin Arrangement



## Absolute Maximum Ratings

(Ta = 25°C)

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

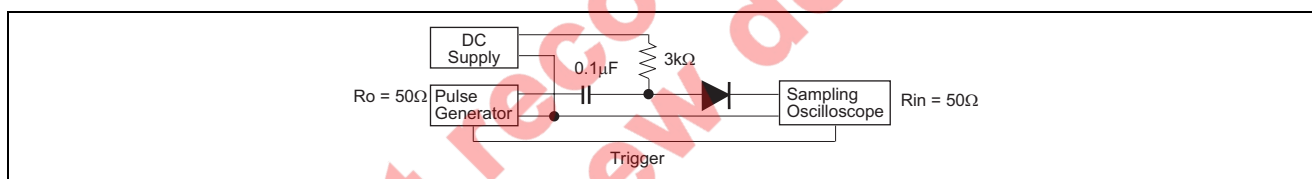
Note: 1. Within 1μs forward surge current.

## 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	V	$I_F = 100 \text{ mA}$
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* <sup>1</sup>	$t_{rr}$	—	—	3.0	ns	$I_F = 10 \text{ mA}$ , $V_R = 6 \text{ V}$ , $R_L = 50 \Omega$

Note: 1. Reverse recovery time test circuit



Main Characteristics

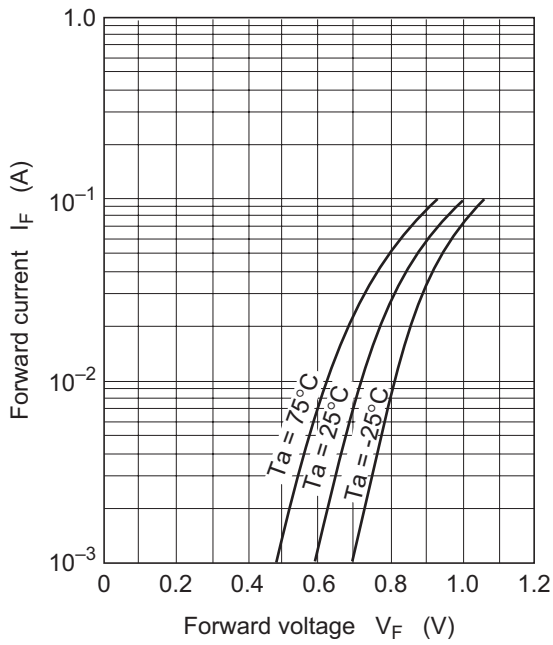


Fig.1 Forward current vs. Forward voltage

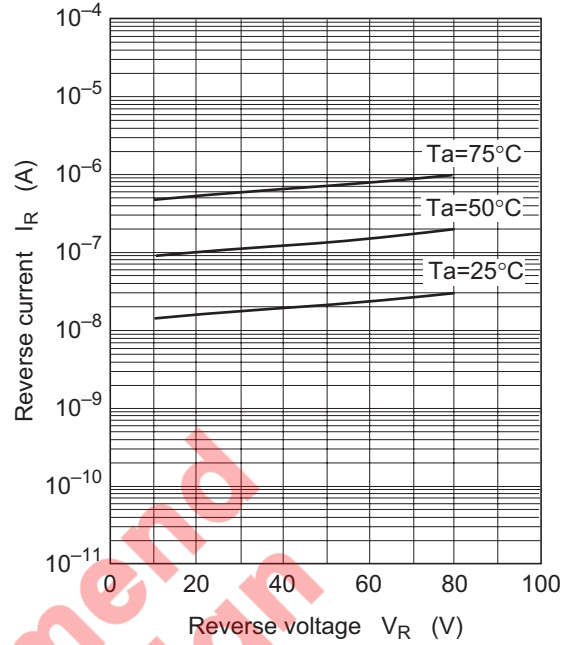


Fig.2 Reverse current vs. Reverse voltage

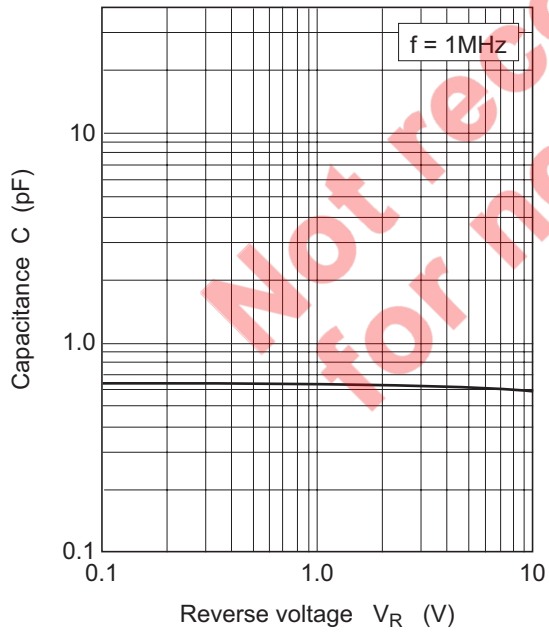
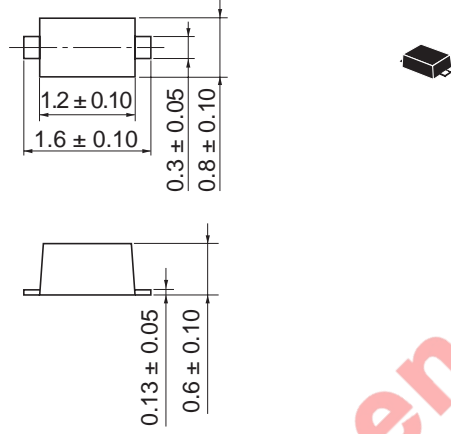


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

As of January, 2003  
Unit: mm



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

Not recommend  
for new design

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