# RENESAS

# **HSC119**

# Silicon Epitaxial Planar Diode for High Speed Switching

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

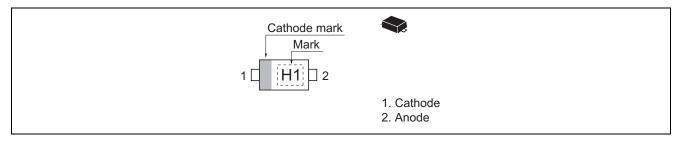
### Features

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

### **Ordering Information**

Туре No.	Laser Mark	Package Code
HSC119	H1	UFP

### **Pin Arrangement**





## **Absolute Maximum Ratings**

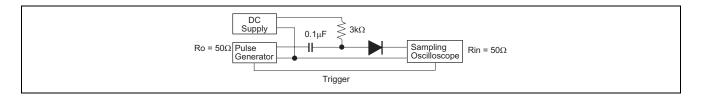
			$(Ta = 25^{\circ}C)$
Item	Symbol	Value	Unit
Peak reverse voltage	V <sub>RM</sub>	85	V
Reverse voltage	V <sub>R</sub>	80	V
Peak forward current	I <sub>FM</sub>	300	mA
Non-Repetitive peak forward surge current	I <sub>FSM</sub> * <sup>1</sup>	4	А
Average rectified current	lo	100	mA
Junction temperature	Тј	125	°C
Storage temperature	Tstg	-55 to +125	°C

Note: 1. Within  $1\mu s$  forward surge current.

## **Electrical Characteristics**

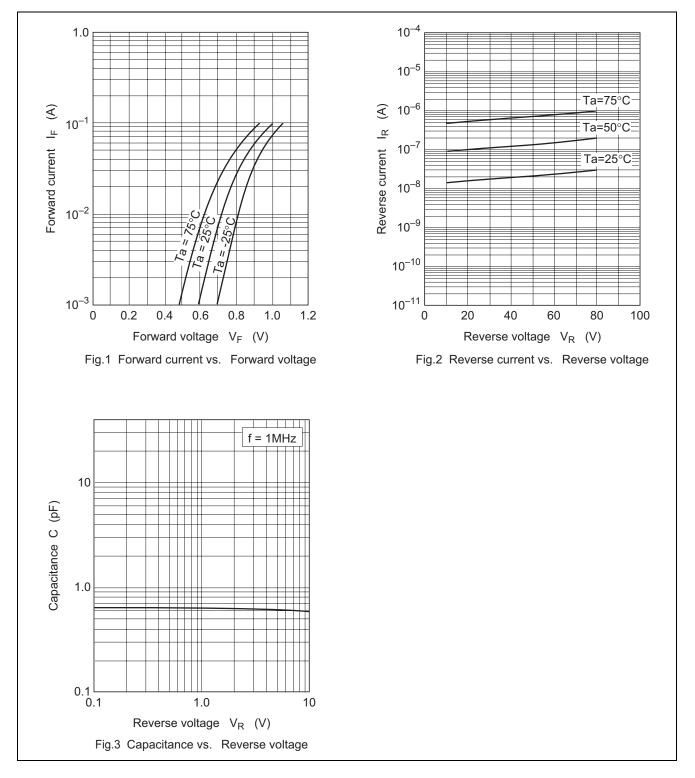
						$(Ta = 25^{\circ}C)$
Item	Symbol	Min	Тур	Max	Unit	Test Condition
Forward voltage	$V_{F1}$	_	_	0.8	V	I <sub>F</sub> = 10 mA
	V <sub>F2</sub>	_	_	1.2		I <sub>F</sub> = 100 mA
Reverse current	I <sub>R</sub>	_	_	0.1	μA	V <sub>R</sub> = 80 V
Capacitance	С	_	_	2.0	pF	$V_{R} = 0 V, f = 1 MHz$
Reverse recovery time*1	t <sub>rr</sub>	_	_	3.0	ns	$I_F = 10 \text{ mA},  V_R = 6  \text{V},  \text{R}_L = 50  \Omega$

Note: 1. Reverse recovery time test circuit



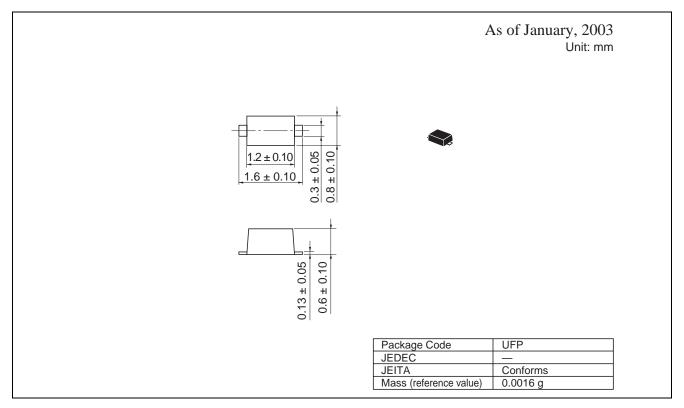


### **Main Characteristics**



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### **Package Dimensions**





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