

HSC119

Silicon Epitaxial Planar Diode for High Speed Switching

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

Features

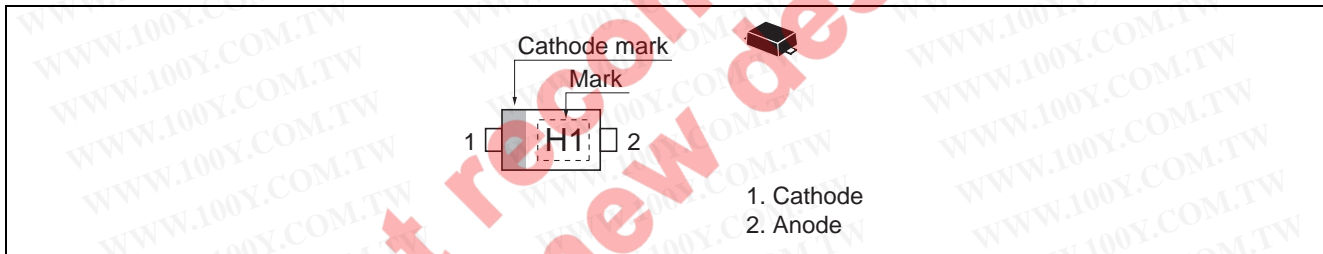
- Low capacitance. ($C = 2.0 \text{ pF max}$)
- Short reverse recovery time. ($t_{rr} = 3.0 \text{ ns max}$)
- Ultra small Flat Package (UFP) is suitable for surface mount design.

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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

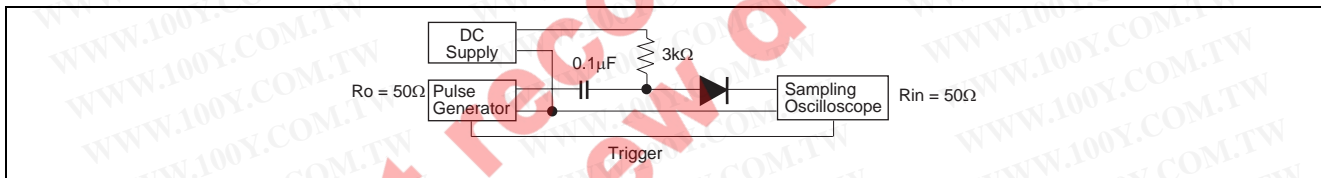
Note: 1. Within 1μs forward surge current.

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* ¹	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



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Main Characteristics

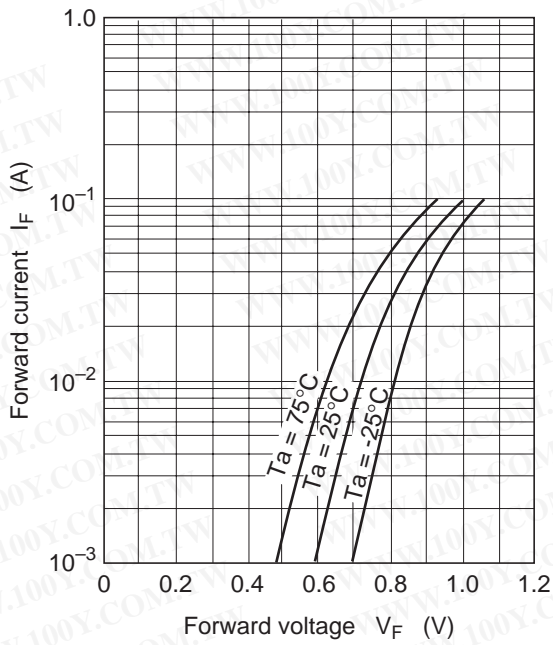


Fig.1 Forward current vs. Forward voltage

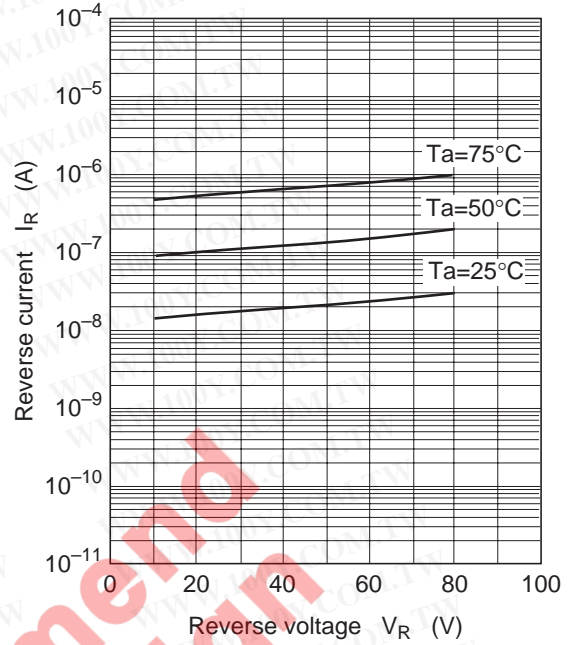


Fig.2 Reverse current vs. Reverse voltage

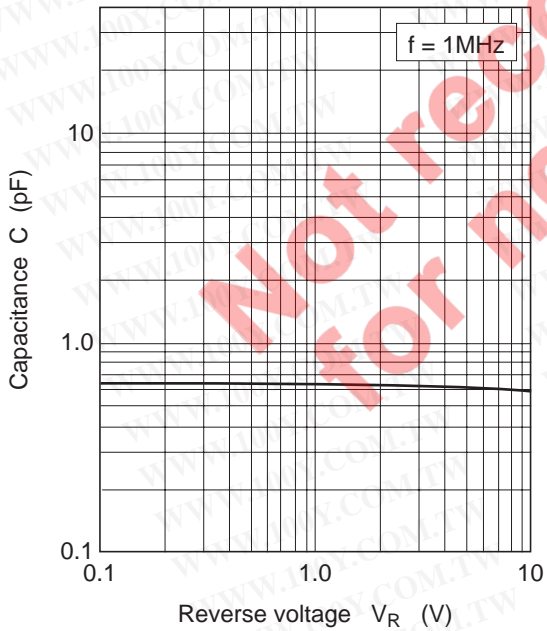
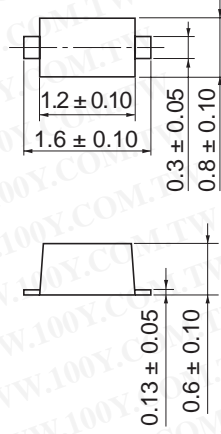


Fig.3 Capacitance vs. Reverse voltage

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Package Dimensions

As of January, 2003
Unit: mm



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

Not recommend for new design

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April 1st, 2010
Renesas Electronics Corporation

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