HSC119

Silicon Epitaxial Planar Diode for High Speed Switching

HITACHI

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

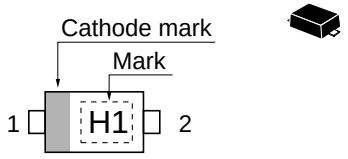
Features

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

Ordering Information

Type No.	Laser Mark	Package Code
HSC119	H1	UFP

Outline



1. Cathode
2. Anode

Hitachi semiconductor

Absolute Maximum Ratings (Ta = 25°C)

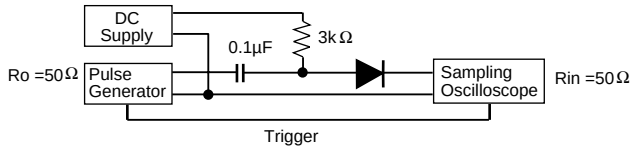
Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Average forward current	I_O	100	mA
Peak rectified current	I_{FM}	300	mA
Non-Repetitive peak forward surge current	I_{FSM} [*1]	4	A
Junction temperature	Tj	125	°C
Storage temperature	Tstg	–55 to +125	°C

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 mA
	V_{F2}	—	—	1.2		I_F = 100 mA
Reverse current	I_R	—	—	0.1	µA	V_R = 80V
Capacitance	C	—	—	2.0	pF	V_R = 0V, f = 1 MHz
Reverse recovery time [*1]	t_{rr}	—	—	3.0	ns	I_F = 10 mA, V_R = 6V R_L=50Ω

Notes 1. Reverse recovery time test circuit



Main Characteristic

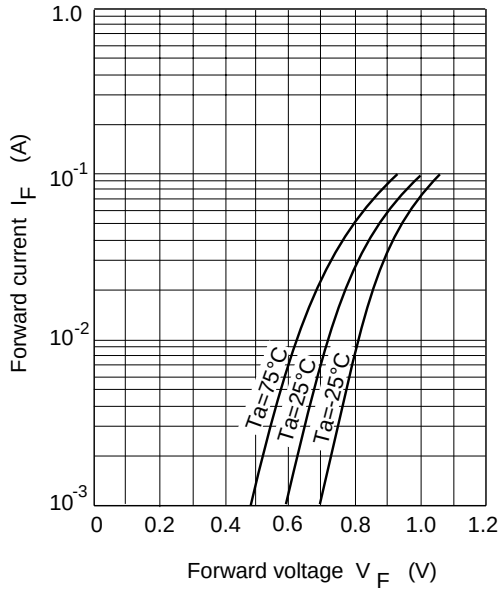


Fig.1 Forward current Vs. Forward voltage

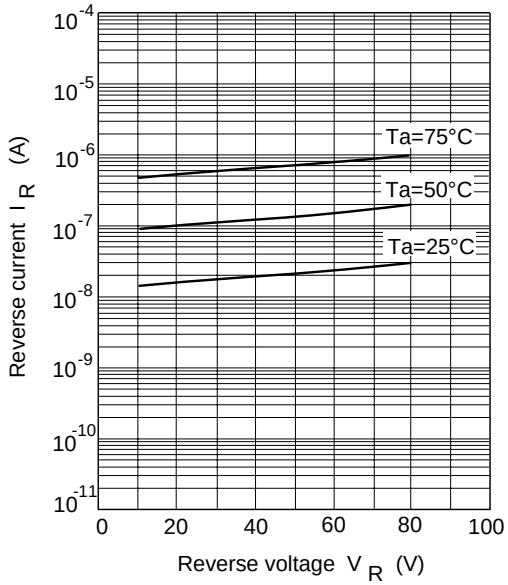


Fig.2 Reverse current Vs. Reverse voltage

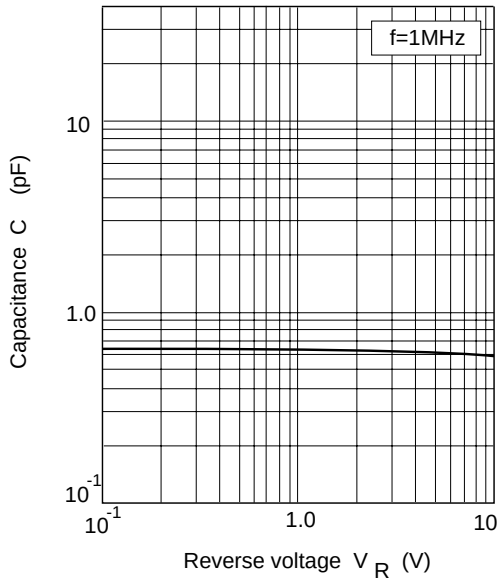
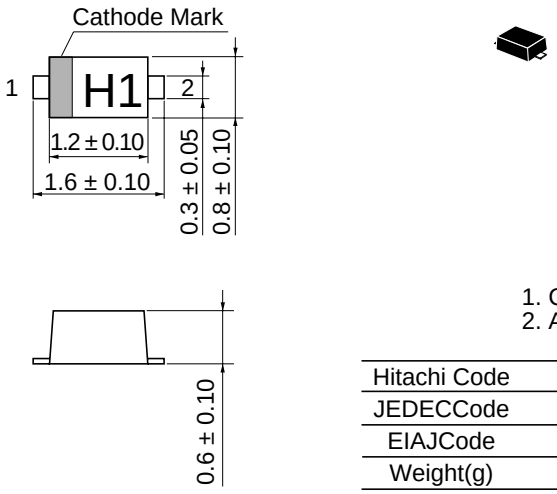


Fig.3 Capacitance Vs. Reverse voltage

Package Dimensions

Unit : mm



1. Cathode
2. Anode

Hitachi Code	*UFP*
JEDECCode	—
EIAJCode	SC-79
Weight(g)	0.0016

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