To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: http://www.renesas.com

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (http://www.renesas.com)

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HSS4148

Silicon Epitaxial Planar Diode for Various Detector, Modulator, Demodulator

REJ03G0404-0100
Rev.1.00
Sep 17, 2004

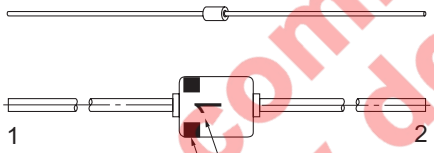
Features

- Low capacitance. (C = 4.0 pF max)
- Short reverse recovery time. (t_{rr} = 4.0 ns max)
- Suitable for 5mm-pitch high speed automatic insertion.

Ordering Information

Type No.	Cathode band	Mark	Package Code
HSS4148	Black	1	MHD

Pin Arrangement



1. Cathode
2. Anode

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Peak reverse voltage	V_{RM}	100	V
Reverse voltage	V_R	75	V
Average rectified current	I_O	150	mA
Peak forward surge current	I_{FM}	450	mA
Non-Repetitive peak forward surge current	I_{FSM} *1	1	A
Junction temperature	Tj	175	°C
Storage temperature	Tstg	–65 to +175	°C

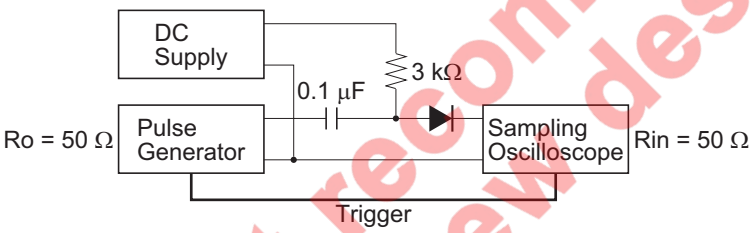
Note: 1. Forward Surge within one second duration

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.0	V	I_F = 10 mA
Reverse current	I_R	—	—	25	nA	V_R = 20 V
Capacitance	C	—	—	4.0	pF	V_R = 0 V, f = 1 MHz
Reverse recovery time	t_{rr} *1	—	—	4.0	ns	I_F = 10 mA, V_R = 6 V, Irr = 1 mA, R_L = 100 Ω

Note: 1. Reverse recovery time test circuit



Thermal Characteristics

Item	Typ	Unit
Rth(j-a)	(300) *1	°C/W

Note: 1. Reference only.

Main Characteristic

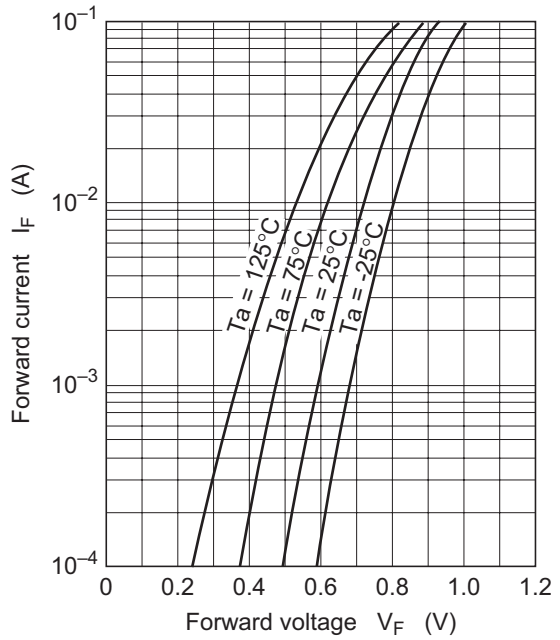


Fig.1 Forward current vs. Forward voltage

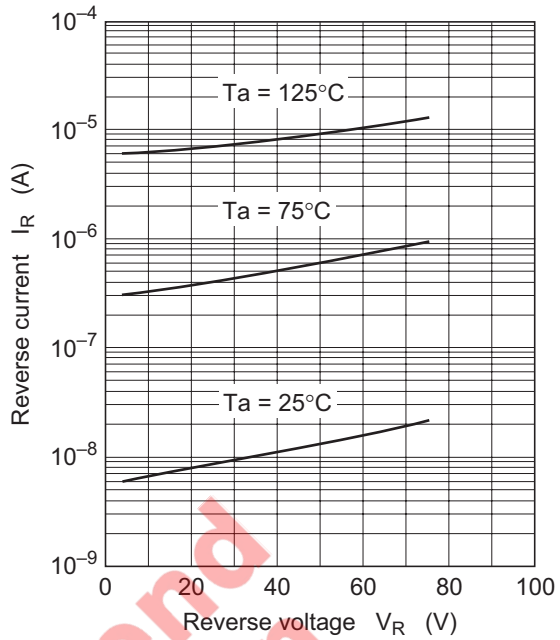


Fig.2 Reverse current vs. Reverse voltage

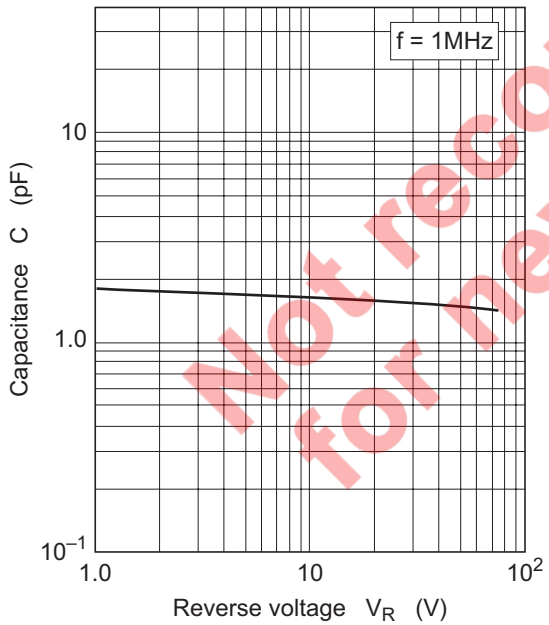
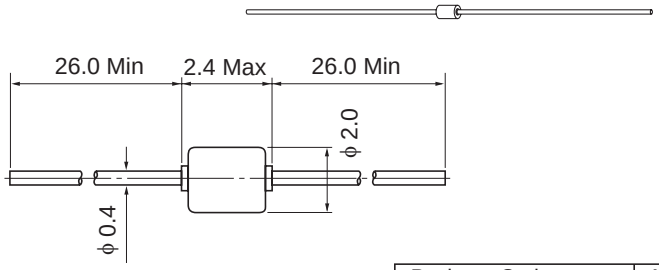


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

As of January, 2003

Unit: mm



Package Code	MHD
JEDEC	Conforms
JEITA	—
Mass (reference value)	0.084 g

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RENESAS SALES OFFICES

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