

# HSS4148

Silicon Epitaxial Planar Diode for Various Detector,  
Modulator, Demodulator

REJ03G0404-0100

Rev.1.00

Sep 17, 2004

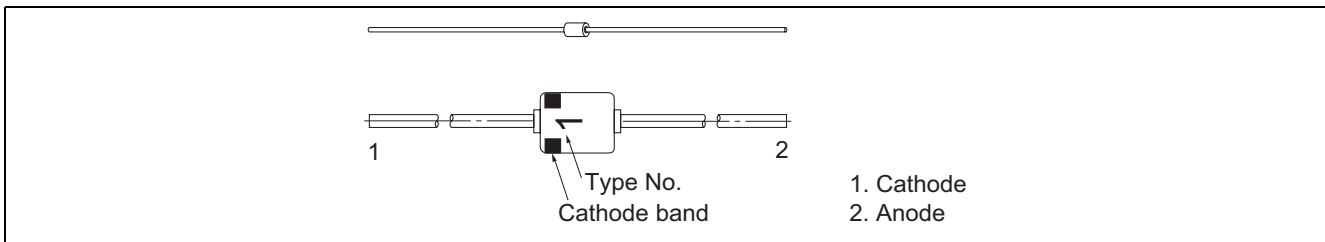
## Features

- 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



## 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	$T_J$	175	°C
Storage temperature	$T_{stg}$	-65 to +175	°C

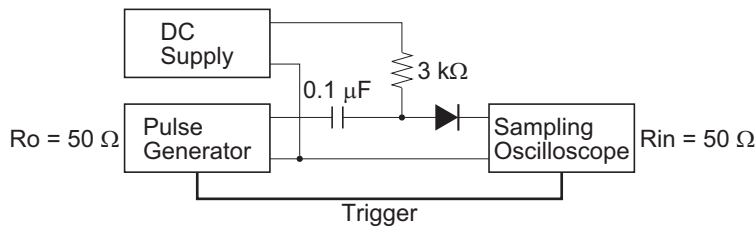
Note: 1. Forward Surge within one second duration

## Electrical Characteristics

(Ta = 25°C)

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

Note: 1. Reverse recovery time test circuit



## Thermal Characteristics

Item	Typ	Unit
$R_{th(j-a)}$	(300) <sup>*1</sup>	°C/W

Note: 1. Reference only.

Main Characteristic

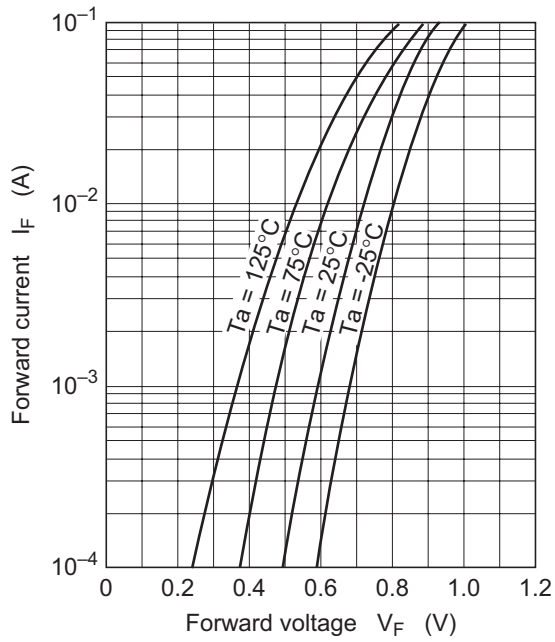


Fig.1 Forward current vs. Forward voltage

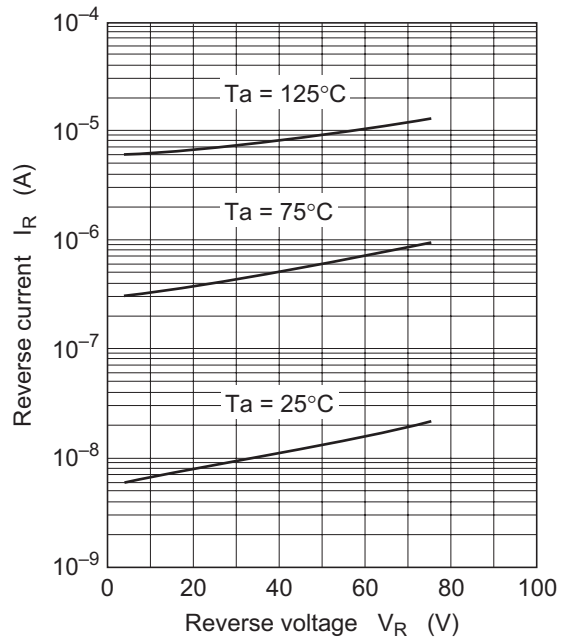


Fig.2 Reverse current vs. Reverse voltage

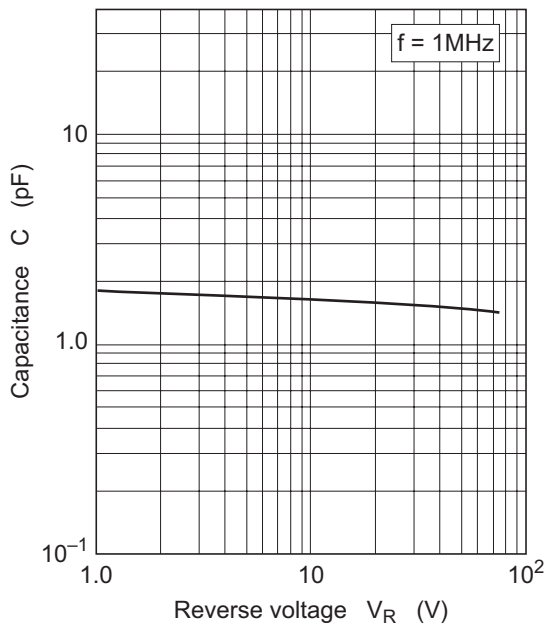
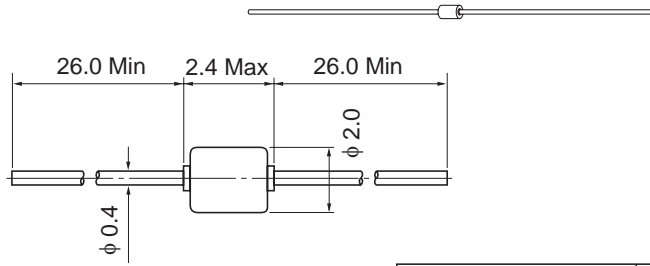


Fig.3 Capacitance vs. Reverse voltage

Package Dimensions

As of January, 2003  
Unit: mm



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

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