

# 開關二極管 Switching Diode

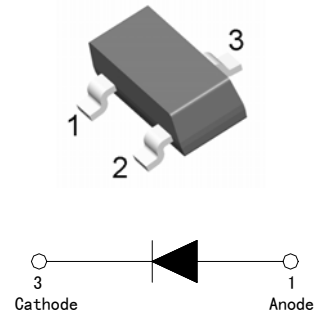
## Switching Diode 開關二極管

# FHD4148

### DESCRIPTION & FEATURES 概述及特點

Low forward voltage 低正向壓降  
Fast reverse recovery time 快恢復時間  
Ultra High Speed Switching Application 超高速開關應用

SOT-23



### PIN ASSIGNMENT 引腳說明

PIN NAME 管腳符號	PIN NUMBER 引腳序號	FUNCTION 功能
	SOT-23	
A	1	Anode
NC	2	—
C	3	Cathode

### MAXIMUM RATINGS(T<sub>a</sub>=25°C) 最大額定值

CHARACTERISTIC 特性參數	Symbol 符號	Rating 額定值	Unit 單位
Continuous Reverse Voltage 連續反向電壓	V <sub>R</sub>	75	Vdc
Peak Reverse Voltage 反向峰值電壓	V <sub>RM</sub>	100	Vdc
Peak Forward Current 正向峰值電流	I <sub>F</sub>	200	mAdc
Peak Forward Surge Current 正向最大浪湧電流	I <sub>FM(surge)</sub>	500	mAdc

### THERMAL CHARACTERISTICS 熱特性

CHARACTERISTIC 特性參數	Symbol 符號	Max 最大值	Unit 單位
Total Device Dissipation FR-5 Board(1) T <sub>A</sub> =25°C	P <sub>D</sub>	225	mW
Total Device Dissipation Alumina Substrate,(2) T <sub>A</sub> =25°C 總耗散功率 氧化鋁襯底	P <sub>D</sub>	300	mW
Junction and Storage Temperature 結溫和儲存溫度	T <sub>J</sub> , T <sub>stg</sub>	150 , -55 ~150	°C

- FR-5=1.0×0.75×0.062in, printed-circuit board.
- Alumina=0.4×0.3×0.024in, 99.5%alumina

### DEVICE MARKING 打標

FHD4148=A8

### ELECTRICAL CHARACTERISTICS 電特性

(T<sub>A</sub>=25°C unless otherwise noted 如無特殊說明，溫度為 25°C)

Characteristic 特性參數	Symbol 符號	Test Condition 測試條件	Min 最小值	Type 典型值	Max 最大值	Unit 單位
Reverse Voltage Leakage Current 反向漏電流	I <sub>R</sub>	V <sub>R</sub> =75Vdc	—	—	1.0	μA
		V <sub>R</sub> =75Vdc, T <sub>j</sub> =150°C	—	—	50	
		V <sub>R</sub> =25Vdc, T <sub>j</sub> =150°C	—	—	30	
Reverse Breakdown Voltage 反向擊穿電壓	V <sub>(BR)</sub>	I <sub>BR</sub> =100 μAdc	100	—	—	Vdc
Forward Voltage 正向電壓	V <sub>F</sub>	I <sub>F</sub> =1mAdc	—	—	715	mV
		I <sub>F</sub> =10mAdc	—	—	855	
		I <sub>F</sub> =50mAdc	—	—	1000	
		I <sub>F</sub> =150mAdc	—	—	1250	
Diode Capacitance 電容	C <sub>D</sub>	V <sub>R</sub> =0, f=1.0MHz	—	—	2.0	pF
Forward Recovery Voltage 正向恢復電壓	V <sub>FR</sub>	I <sub>F</sub> =10mAdc, t <sub>r</sub> =20ns	—	—	1.75	Vdc
Reverse Recovery Time 反向恢復時間	t <sub>rr</sub>	V <sub>R</sub> =6V, I <sub>F</sub> =10mA, R <sub>L</sub> =100Ω, i <sub>rr</sub> =0.1IR	—	—	4.0	nS