

開關二極管 Switching Diode

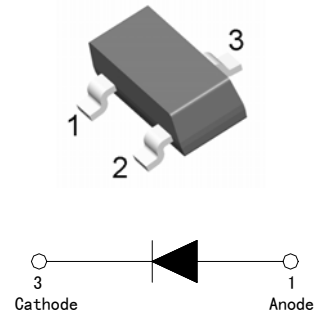
Switching Diode 開關二極管

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_a=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 _R	75	Vdc
Peak Reverse Voltage 反向峰值電壓	V _{RM}	100	Vdc
Peak Forward Current 正向峰值電流	I _F	200	mAdc
Peak Forward Surge Current 正向最大浪湧電流	I _{FM(surge)}	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 _A =25°C	P _D	225	mW
Total Device Dissipation Alumina Substrate,(2) T _A =25°C 總耗散功率 氧化鋁襯底	P _D	300	mW
Junction and Storage Temperature 結溫和儲存溫度	T _J , T _{stg}	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_A=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 _R	V _R =75Vdc	—	—	1.0	μA
		V _R =75Vdc, T _j =150°C	—	—	50	
		V _R =25Vdc, T _j =150°C	—	—	30	
Reverse Breakdown Voltage 反向擊穿電壓	V _(BR)	I _{BR} =100 μAdc	100	—	—	Vdc
Forward Voltage 正向電壓	V _F	I _F =1mAdc	—	—	715	mV
		I _F =10mAdc	—	—	855	
		I _F =50mAdc	—	—	1000	
		I _F =150mAdc	—	—	1250	
Diode Capacitance 電容	C _D	V _R =0, f=1.0MHz	—	—	2.0	pF
Forward Recovery Voltage 正向恢復電壓	V _{FR}	I _F =10mAdc, t _r =20ns	—	—	1.75	Vdc
Reverse Recovery Time 反向恢復時間	t _{rr}	V _R =6V, I _F =10mA, R _L =100Ω, i _{rr} =0.1IR	—	—	4.0	nS