



LL-34 部分产品技术参数 (DATA SHEET)

Switching Diode (FH1N4148)

开关二极管

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Description

- The FH1N4148 is designed for high-speed switching application in hybrid thick-and-thin-film circuits.
- Small surface mouting type.(LL-34)

Maximum Ratings&Thermal Characteristics (T_a=25)

最大额定值及热特性

CHARACTERISTIC 特性参数	Symbol 符号	Value 数值	Unit 单位
Maximum Peak Repetitive Reverse Voltage 最大反向峰值电压	V _{RRM}	100	V
Maximum RMS Voltage 反向电压	V _{RMS}	75	V
Voltage Rise when Switching ON Tested with 50mA Forward Pulses Tp=0.1s, Rise Time < 30ns, fp=5 to 100KHz	V _{FR}	2.5	V
Rectifier Current (average) Half Wave Rectification with Resist. Load At T _A =25 and f≥50Hz 半波整流电流	I _o	150	mA
Surge Forward Current at t < 1s and T _A =25	I _{FSM}	500	mA
Power Dissipation at T _A =25	P _{TOT}	500	mW
Thermal Resistance Junction to ambient air 热阻	R _{JA}	0.35	/mW
Junction and Storage Temperature 结温和储存温度	T _J , T _{STG}	175,-65 to +150	

ELECTRICAL CHARACTERISTICS 电特性

(T_A=25 unless otherwise noted 如无特殊说明, 温度为 25)

Characteristic 特性参数	Symbol 符号	Test Condition 测试条件	Min 最小值	TYPE 典型值	Max 最大值	Unit 单位
Forward Voltage 正向电压	V _F	I _F =10mA	—	—	1.0	V
Reverse Voltage 反向电压	V _R	I _R =100μA	75	—	—	V
Reverse Voltage Leakage Current 反向漏电流	I _R	V _R =20V	—	—	25	nA
		V _R =75V	—	—	5	μA
		V _R =20V, T _j =150	—	—	50	μA
Total Capacitance 电容	C _T	V _R =0, f=1.0MHz	—	—	4.0	pF
Reverse Recovery Time 反向恢复时间	t _{rr}	From I _F =10mA to I _R =1mA, V _R =6V, R=100Ω	—	—	4	nS
Rectification Efficiency 整流效率	η _r	f=100MHZ, V _{RF} =2V	0.45	—	—	—



Silicon zener Diodes (FHZ2V4~FHZ75V)

稳压二极管

Features:

- Very sharp reverse characteristic
 - Very high stability
 - Low reverse current level
 - Vz-tolerance $\pm 5\%$
 - Small surface mounting type.(LL-34)
- Applications:
Voltage stabilization

ABSOLUTE MAXIMUM RATINGS (T_A=25)

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation 耗散功率	R _{thJA} <300K/W, Ta=25		PV	500	mW
Z-current 稳压电流			IZ	PV/VZ	mA
Junction temperature 结温			Tj	175	
Storage temperature range 储存温度			Tstg	-65~+175	

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Maximum Thermal Resistance

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient 热阻	on PC board 50mmx50mmx1.6mm	R _{thJA}	500	K/W

ELECTRICAL CHARACTERISTICS (T_A=25)

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage 正向电压	I _F =200mA		V _F			1.1	V

Type	VZnom	IZT for rzjT	IZT for rzjT	rzjk at IZK	rzjk at IZK	IR at VR	IR at VR	TKVZ
	V	mA	Ohm	Ohm	mA	μA	V	%/K
FHZ2V4	2.4	5	< 30	< 1200	0.25	< 100	1.0	< -0.085
FHZ2V5	2.5	5	< 30	< 1250	0.25	< 100	1.0	< -0.085
FHZ2V7	2.7	5	< 30	< 1300	0.25	< 75	1.0	< -0.080
FHZ2V8	2.8	5	< 30	< 1400	0.25	< 75	1.0	< -0.080
FHZ3V0	3.0	5	< 29	< 1600	0.25	< 50	1.0	< -0.075
FHZ3V3	3.3	5	< 28	< 1600	0.25	< 25	1.0	< -0.070
FHZ3V6	3.6	5	< 24	< 1700	0.25	< 15	1.0	< -0.065
FHZ3V9	3.9	5	< 23	< 1900	0.25	< 10	1.0	< -0.060
FHZ4V3	4.3	5	< 22	< 2000	0.25	< 5	1.0	< ± 0.055
FHZ4V7	4.7	5	< 19	< 1900	0.25	< 5	2.0	< ± 0.030
FHZ5V1	5.1	5	< 17	< 1600	0.25	< 5	2.0	< ± 0.030
FHZ5V6	5.6	5	< 11	< 1600	0.25	< 5	3.0	< +0.038
FHZ6V0	6.0	5	< 7	< 1600	0.25	< 5	3.5	< +0.038
FHZ6V2	6.2	5	< 7	< 1000	0.25	< 5	4.0	< +0.045
FHZ6V8	6.8	5	< 5	< 750	0.25	< 3	5.0	< +0.050
FHZ7V5	7.5	5	< 6	< 500	0.25	< 3	6.0	< +0.058
FHZ8V2	8.2	5	< 8	< 500	0.25	< 3	6.5	< +0.062
FHZ8V7	8.7	5	< 8	< 600	0.25	< 3	6.5	< +0.065
FHZ9V1	9.1	5	< 10	< 600	0.25	< 3	7.0	< +0.068
FHZ10V	10	5	< 17	< 600	0.25	< 3	8.0	< +0.075
FHZ11V	11	5	< 22	< 600	0.25	< 2	8.4	< +0.076
FHZ12V	12	5	< 30	< 600	0.25	< 1	9.1	< +0.077
FHZ13V	13	5	< 13	< 600	0.25	< 0.5	9.9	< +0.079



FHZ14V	14	5	< 15	< 600	0.25	< 0.1	10	< +0.082
FHZ15V	15	5	< 16	< 600	0.25	< 0.1	11	< +0.082
FHZ16V	16	5	< 17	< 600	0.25	< 0.1	12	< +0.083
FHZ17V	17	5	< 19	< 600	0.25	< 0.1	13	< +0.084
FHZ18V	18	5	< 21	< 600	0.25	< 0.1	14	< +0.085
FHZ19V	19	5	< 23	< 600	0.25	< 0.1	14	< +0.086
FHZ20V	20	5	< 25	< 600	0.25	< 0.1	15	< +0.086
FHZ22V	22	5	< 29	< 600	0.25	< 0.1	17	< +0.087
FHZ24V	24	5	< 33	< 600	0.25	< 0.1	18	< +0.088
FHZ25V	25	5	< 35	< 600	0.25	< 0.1	19	< +0.089
FHZ27V	27	5	< 41	< 600	0.25	< 0.1	21	< +0.090
FHZ28V	28	5	< 44	< 600	0.25	< 0.1	21	< +0.091
FHZ30V	30	5	< 49	< 600	0.25	< 0.1	23	< +0.091
FHZ33V	33	5	< 58	< 700	0.25	< 0.1	25	< +0.092
FHZ36V	36	5	< 70	< 700	0.25	< 0.1	27	< +0.093
FHZ39V	39	5	< 80	< 800	0.25	< 0.1	30	< +0.094
FHZ43V	43	5	< 93	< 900	0.25	< 0.1	33	< +0.095
FHZ47V	47	5	< 105	< 1000	0.25	< 0.1	36	< +0.095
FHZ51V	51	5	< 125	< 1100	0.25	< 0.1	39	< +0.096
FHZ56V	56	5	< 150	< 1300	0.25	< 0.1	43	< +0.096
FHZ60V	60	5	< 170	< 1400	0.25	< 0.1	46	< +0.097
FHZ62V	62	5	< 185	< 1400	0.25	< 0.1	47	< +0.097
FHZ68V	68	5	< 230	< 1600	0.25	< 0.1	52	< +0.097
FHZ75V	75	5	< 270	< 1700	0.25	< 0.1	56	< +0.098

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