

P1N4148HS Switching Diode

Feature

- > For surface mounted applications
- > Ideal for automated placement
- Low junction capacitance
- Low leakage current
- > For general purpose switching applications

Mechanical Characteristics

- Case: SOD-323HE
- > Terminals: Solderable per MIL-STD-750, Method 2026
- > Approx. Weight: 5.4mg / 0.00019oz

Absolute maximum rating@25°C

Parameter		Symbol	Value	Units
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	100	V
Maximum RMS Voltage		V _{RMS}	75	V
Average Rectified Forward Current		I _{F(AV)}	150	mA
Non-reptitive Peak Forward Surge Current	at 1s	I _{FSM}	0.5	A
	at 1ms		1.0	
	at 1µs		4.0	
Total Power Dissipation		P _{tot}	400	mW
Operating and Storage Temperature Range		T _j , T _{stg}	-55~+150	°C

Electrical characteristics per line@25°C

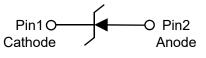
Parameter		Value	Units
Reverse BreakdownVoltage at I _R =1µA		75	V
at 1 mA	VF	0.715	- V
at 10 mA		0.855	
at 50 mA		1.0	
at 150 mA		1.25	
V _R =20V,T _j =25°C	I _R	0.025	- μΑ
V _R =75V,Tj=25℃		1.0	
V _R =25V,T _j =150°C		30	
V _R =75V,T _j =150°C		50	
Typical Junction Capacitance at V _R =0V, f=1MHz		2.0	pF
Maximum Reverse Recovery Time 1)		4.0	ns
	at 1 mA at 10 mA at 50 mA at 50 mA $V_R=20V,T_j=25^{\circ}C$ $V_R=75V,T_j=25^{\circ}C$ $V_R=25V,T_j=150^{\circ}C$ $V_R=75V,T_j=150^{\circ}C$ OV, f=1MHz	at 1 mA V_F at 10 mA V_F at 50 mA V_F at 150 mA V_F vx=20V,Tj=25°C $V_R=75V,Tj=25°C$ $V_R=25V,Tj=150°C$ I_R $V_R=75V,Tj=150°C$ $V_R=75V,Tj=150°C$ $V_R=75V,Tj=150°C$ $OV, f=1MHz$	A V_{BR} 75 at 1 mA V_F 0.715 at 10 mA V_F 0.855 at 50 mA 1.0 at 150 mA 1.25 V_R =20V,Tj=25°C V_R =75V,Tj=25°C V_R =75V,Tj=150°C I_R V_R =75V,Tj=150°C I_R V_R =75V,Tj=150°C C_j 0.025 0.025

1) Measured with $I_F = I_R = 10 \text{mA}$, $I_{rr} = 0.1 \text{xI}_R$, $R_L = 100 \Omega$





SOD-323HE



Circuit Diagram

Switching Diode

P1N4148HS

Typical Characteristics

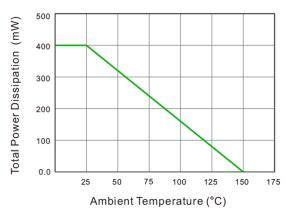


Fig.1 Power Derating Curve

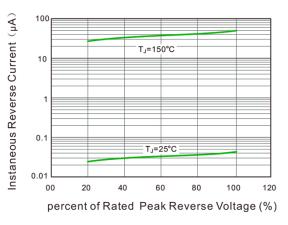
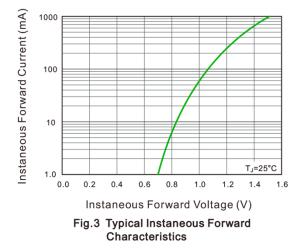
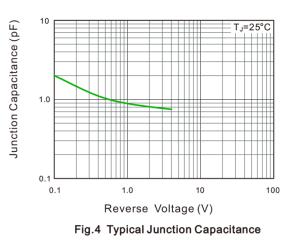


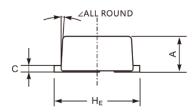
Fig.2 Typical Reverse Characteristics

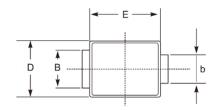




Switching Diode

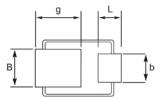
Product dimension (SOD-323HE)





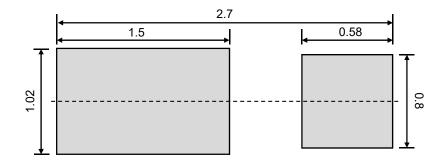
Top View





Bottom View

Dim	Millim	neters	Inches			
	Min	Max	Min	Max		
А	0.57	0.77	0.022	0.030		
b	0.45	0.75	0.018	0.030		
В	0.65	0.95	0.026	0.037		
С	0.10	0.20	0.004	0.008		
D	1.25	1.45	0.049	0.057		
E	2.10	2.30	0.083	0.091		
H _E	2.30	2.70	0.091	0.106		
g	1.10	1.55	0.043	0.061		
L	0.25	0.50	0.010	0.020		
۷	12°					



Suggested PCB Layout

Unit:mm

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