

Silicon Epitaxial Planar Schottky Barrier Diode

Features

- Small surface mounting type
- Low reverse current and low forward voltage
- High reliability

Applications

- High speed switching

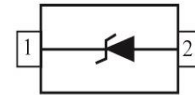
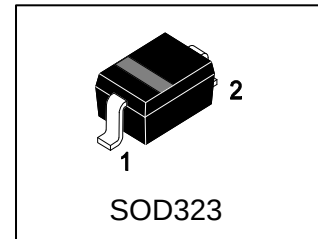
Marking

- “5” or “E4”



PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	40	V
Reverse Voltage	V_R	30	V
Average Forward Rectifying Current	$I_{F(AV)}$	300	mA
Peak Forward Surge Current (60 Hz for 1 Cyc.)	I_{FSM}	600	mA
Power Dissipation	PD	0.2	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Typ.	Max.	Unit
Forward Voltage at $I_F = 1\text{ mA}$	V_F	-	0.37	V
Reverse Current at $V_R = 30\text{ V}$	I_R	-	0.5	μA
Capacitance Between Terminals at $V_R = 1\text{ V}$, $f = 1\text{ MHz}$	C_T	2	-	pF

Note: ESD sensitive product handling required.

FR-4 Board = 5 x 5 cm. Minimum Pad Layout

Silicon Epitaxial Planar Schottky Barrier Diode
ELECTRICAL CHARACTERISTICS CURVE

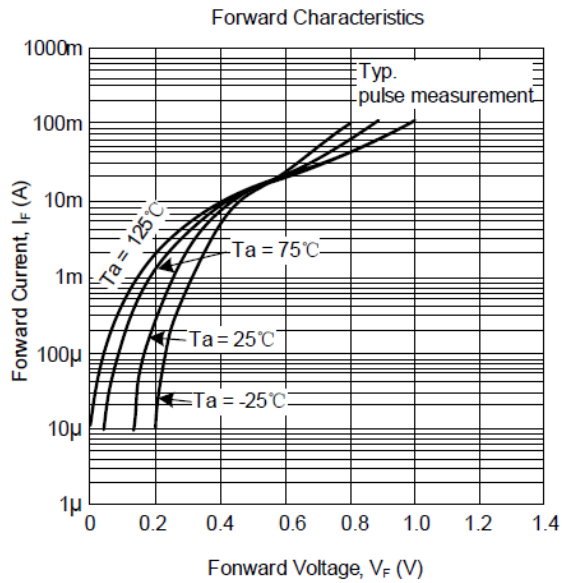


Fig.1 - Forward Characteristics

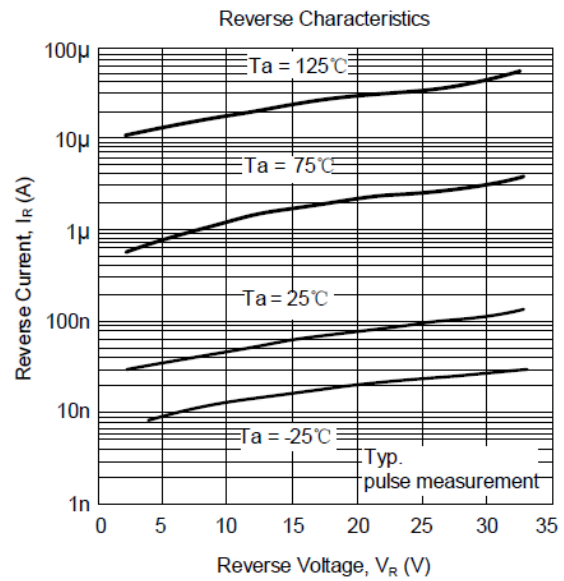


Fig.2 -Reverse Characteristics

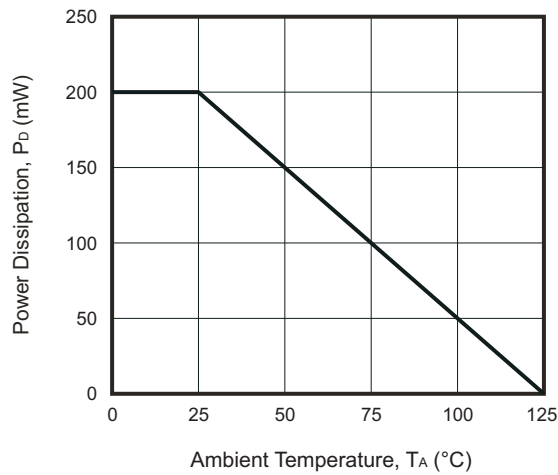


Fig.3 - Power Derating Curve

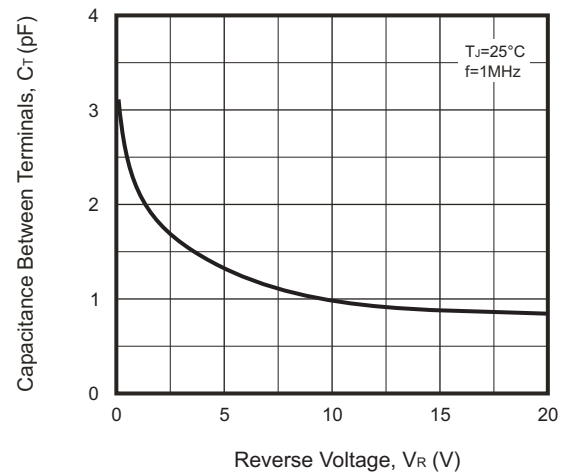
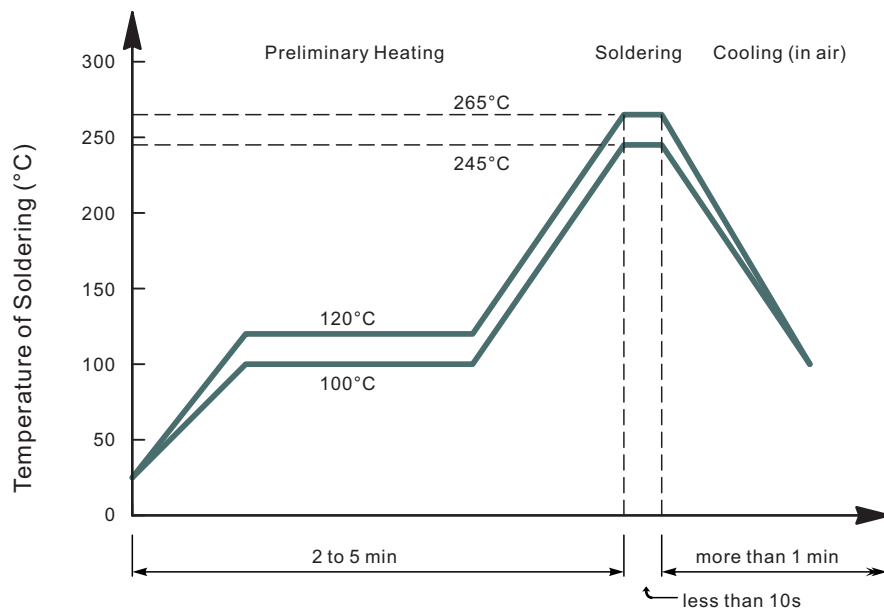


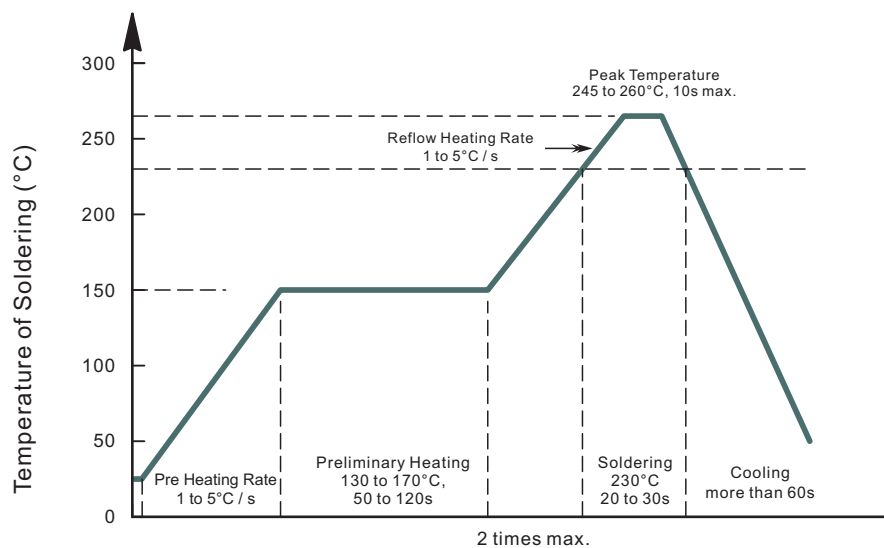
Fig.4 - Capacitance Characteristics

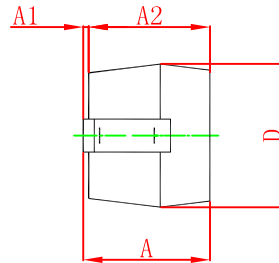
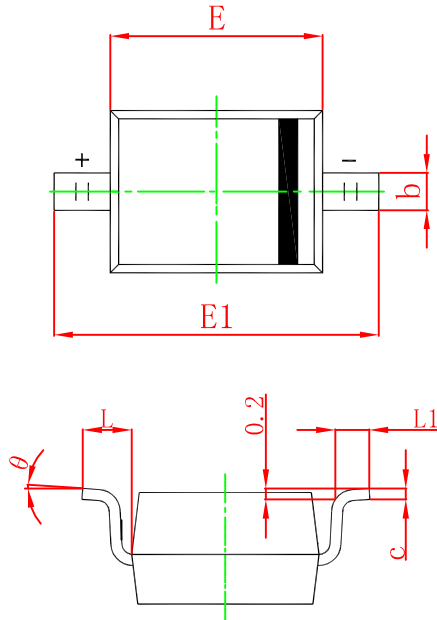
Silicon Epitaxial Planar Schottky Barrier Diode

• Recommended condition of flow soldering

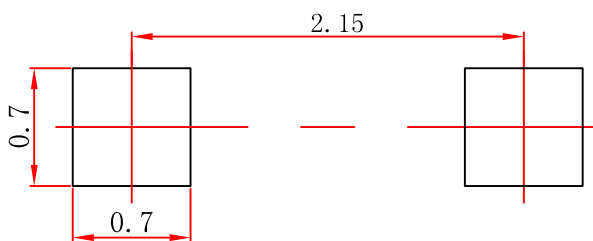


• Recommended condition of reflow soldering

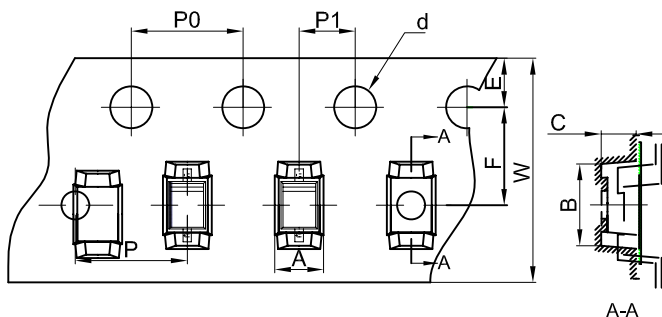


SOD-323 Package Outline Dimensions Silicon Epitaxial Planar Schottky Barrier Diode


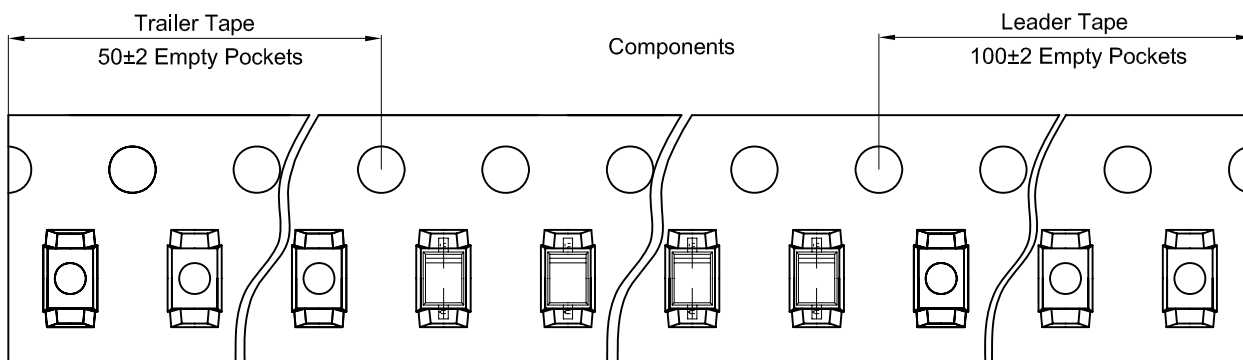
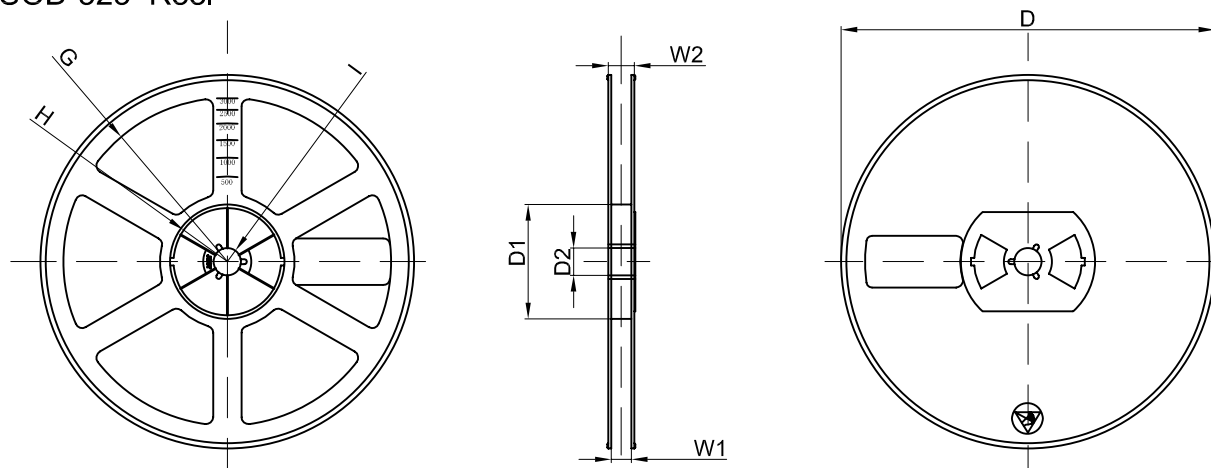
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A		1.100		0.043
A1	0.000	0.100	0.000	0.004
A2	0.800	1.000	0.031	0.039
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.500	2.750	0.098	0.108
L	0.475 REF		0.019 REF	
L1	0.250	0.400	0.010	0.016
θ	0°	8°	0°	8°

SOD-323 Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Silicon Epitaxial Planar Schottky Barrier Diode
Tape and Reel Specification


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.46	2.90	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
(Tolerance)	+/-0.05	+/-0.05	+/-0.05	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+0.3/-0.1

SOD-323 Tape Leader and Trailer

SOD-323 Reel


Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30
Tolerance	+/-2	+/-1	+/-1	+/-1	+/-1	+/-1	+/-1	+/-1

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	

service@jy-electronics.com.cn