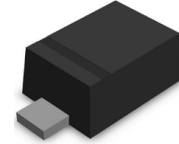
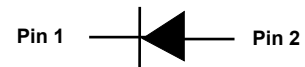


Feature

- Forward Current: 2A
- Reverse voltage: 40V
- Low forward voltage
- Low leakage current
- Trench MOS barrier Schottky technology
- Ultra Small mold type. (SOD-323F)


SOD-323F(Top View)
Applications

- Low current rectification
- Voltage clamping
- Protection circuits
- Ultra high-speed switching


Circuit Diagram

Marking (Top View)
Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Device meets MSL 3 requirements
- Qualified max reflow temperature:260°C

Electrical characteristics per line@25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	0.38	0.42	V	$I_F=500mA$
Forward voltage	V_F	-	0.42	0.46	V	$I_F=1A$
Forward voltage	V_F	-	0.44	0.49	V	$I_F=1.5A$
Forward voltage	V_F	-	0.47	0.5	V	$I_F=2A$
Reverse current	I_R	-	-	50	μA	$V_R=40V$
Junction Capacitance	C_J	-	300	-	pF	$V_R=0V$ $f=1MHz$

Absolute maximum rating@25°C

Parameter	Symbol	limits	Unit
Reverse voltage(repetitive peak)	V_{RM}	40	V
Reverse voltage (DC)	V_R	40	V
Average rectified forward current	I_o	2	A
Non-Repetitive Peak Forward Surge Current(8.3ms single half sine-wave superimposed on rated load)	I_{FSM}	15	A

Parameter	Symbol	limits	Unit
Power Dissipation	$R_{\theta JA}=210 \text{ }^\circ\text{C/W}^1)$	480	mW
	$R_{\theta JL}=70 \text{ }^\circ\text{C/W}^1)$	1400	
Operating Junction temperature Range	T_J	-55 to 125	$^\circ\text{C}$
Storage temperature	T_{STG}	-55 to 125	$^\circ\text{C}$

Note1: 8.0mm² (.013mm thick) land areas

Typical Characteristics

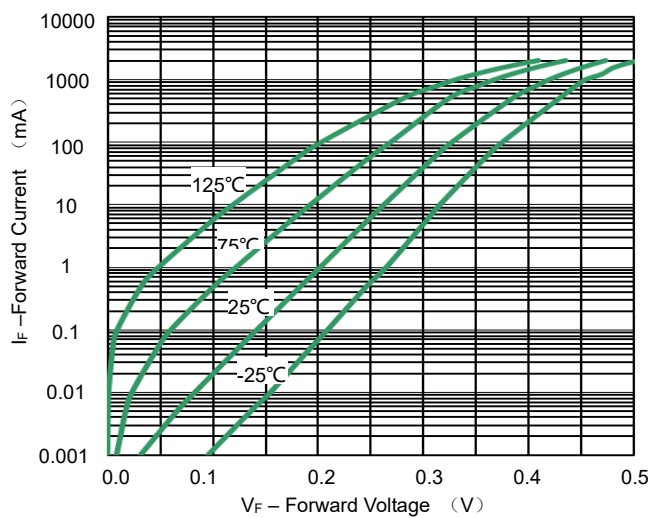


Fig 1. Forward Voltage

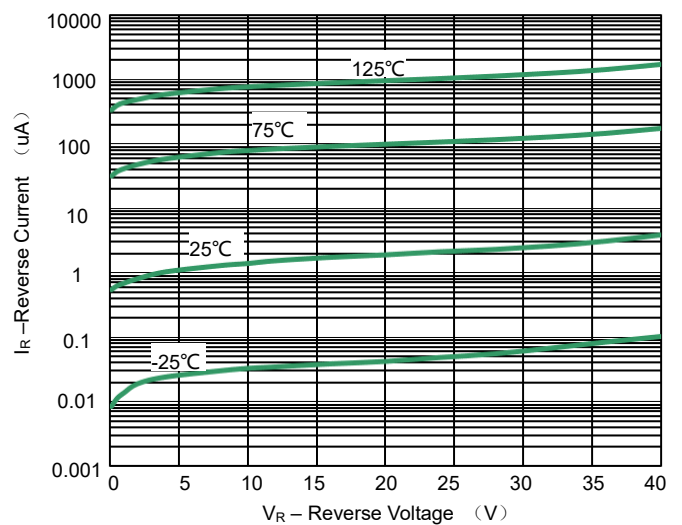


Fig 2. Leakage Current

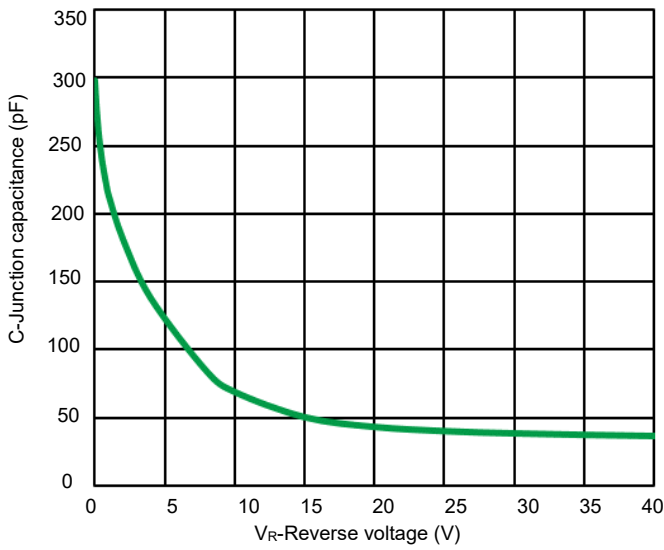
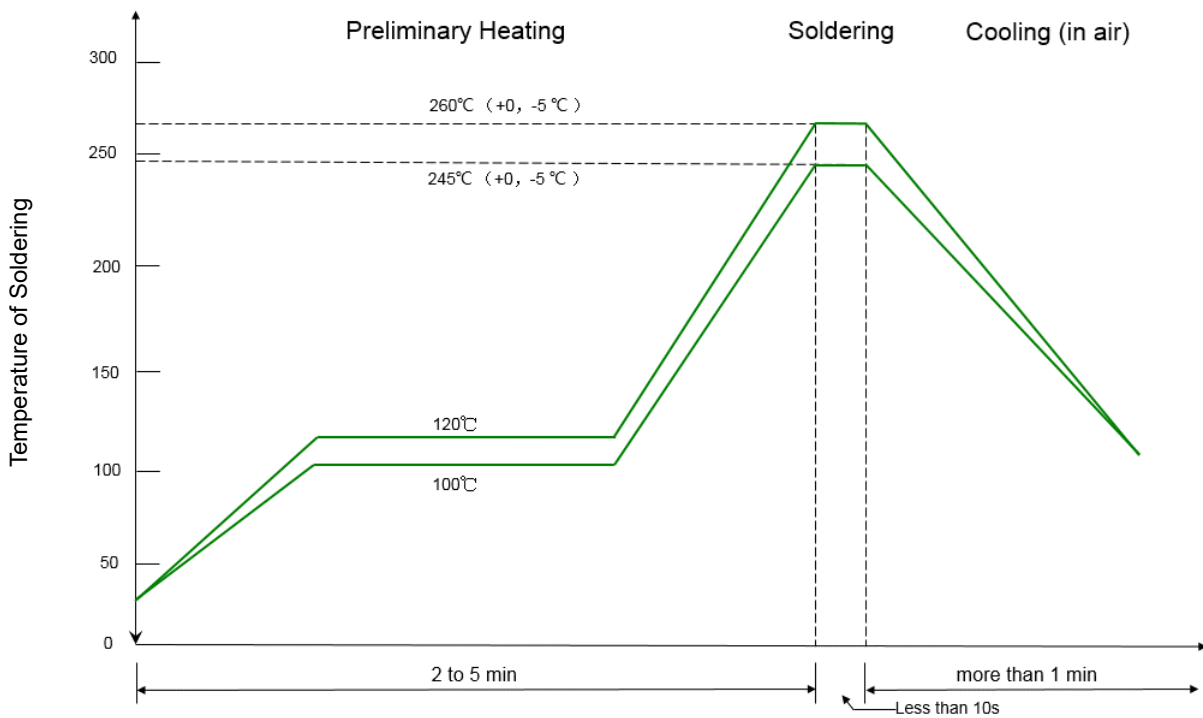


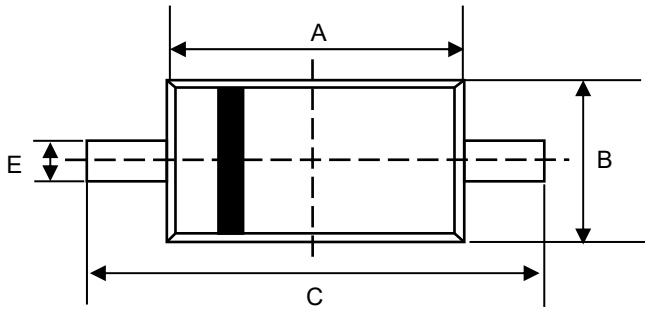
Fig 3. Capacitance vs. Reverse voltage

Solder Reflow Recommendation

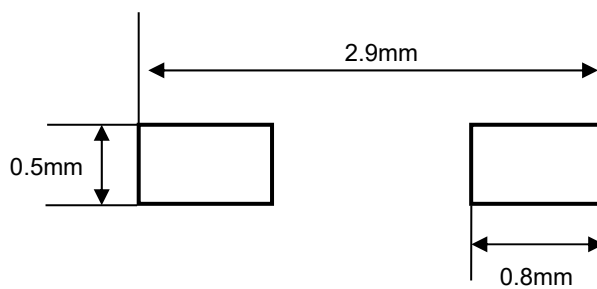
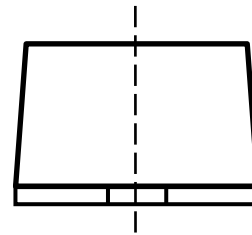
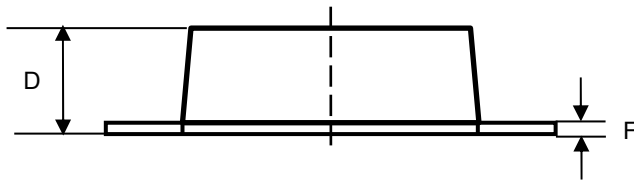


Remark: Pb free for 260°C; Pb for 245°C.

Product dimension (SOD-323F)



Dim	Millimeters		
	MIN	TYP	MAX
A	1.60	1.70	1.80
B	1.15	1.25	1.35
C	2.30	2.50	2.70
D	0.60	0.70	0.80
E	0.20	0.30	0.40
F	0.08	0.13	0.18

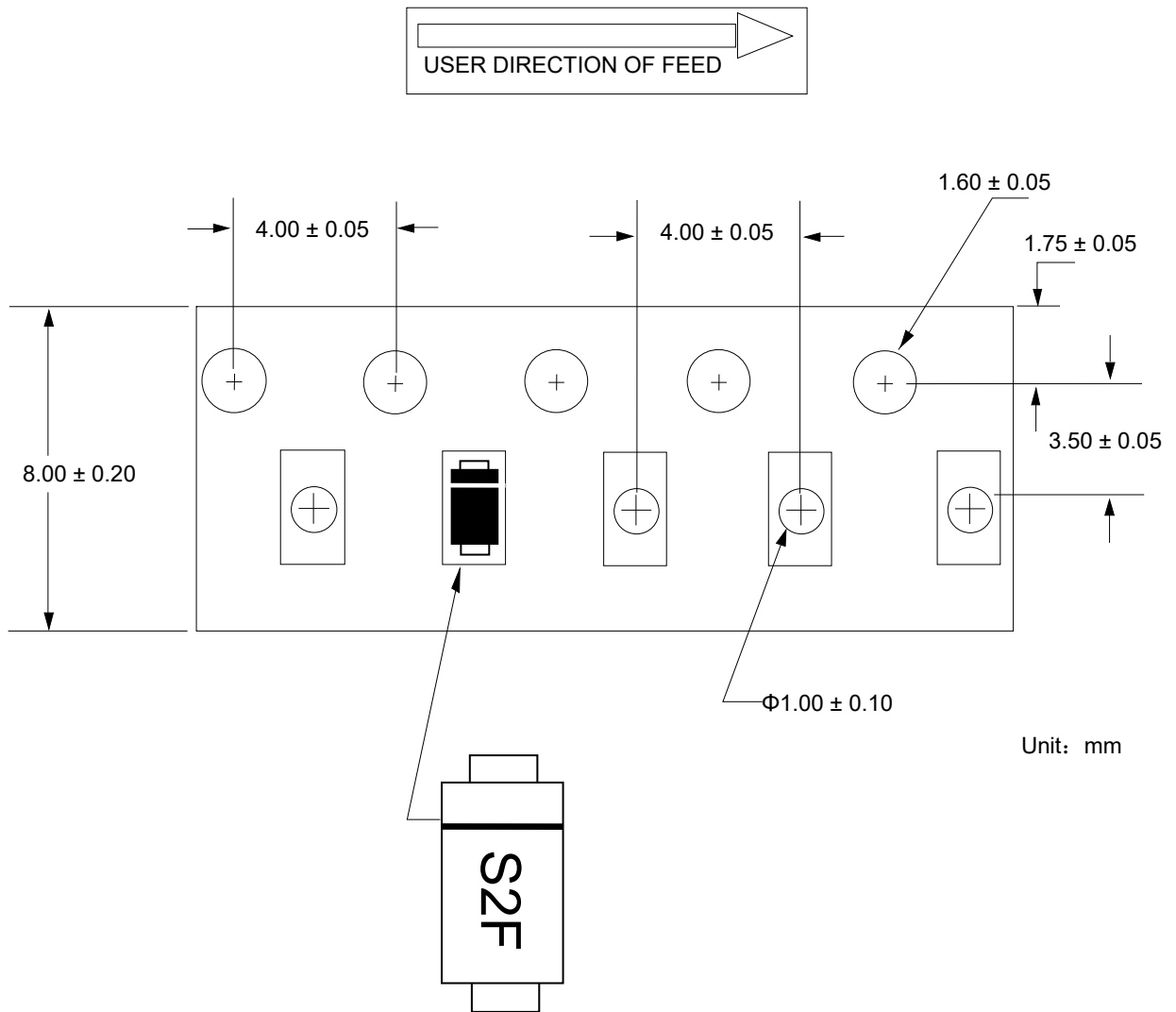


Suggested PCB Layout


Ordering information

Device	Package	Reel	MPQ
PSBD3DF40V2H	SOD-323F(Pb-Free)	7"	3000 / Tape & Reel

Load with information




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