

**Feature**

- Ultra Small mold type. SOD-923
- Low I<sub>R</sub>
- High reliability.



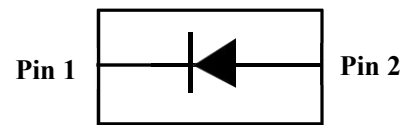
SOD-923(Top View)

**Applications**

- Low current rectification

**Mechanical Characteristics**

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260℃
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 um
- Pin flatness :≤3mil



Circuit Diagram

**Electrical characteristics per line@25℃**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V <sub>F</sub>	-	0.27	0.31	V	I <sub>F</sub> =1mA
Forward voltage	V <sub>F</sub>	-	0.30	0.35	V	I <sub>F</sub> =10mA
Forward voltage	V <sub>F</sub>		0.36	0.40	V	I <sub>F</sub> =20mA
Forward voltage	V <sub>F</sub>	-	0.48	0.55	V	I <sub>F</sub> =100mA
Reverse current	I <sub>R</sub>	-	-	1.5	μA	V <sub>R</sub> =10V

**Absolute maximum rating@25℃**

Parameter	Symbol	limits	Unit
Reverse voltage (DC)	V <sub>RM</sub>	30	V
Average rectified forward current	I <sub>o</sub>	100	mA
Forward current surge peak (60Hz 1cyc)	I <sub>FSM</sub>	500	mA
Operating Junction temperature Range	T <sub>j</sub>	-55 to 125	℃
Storage temperature	T <sub>stg</sub>	-40 to +125	℃

**Typical Characteristics**

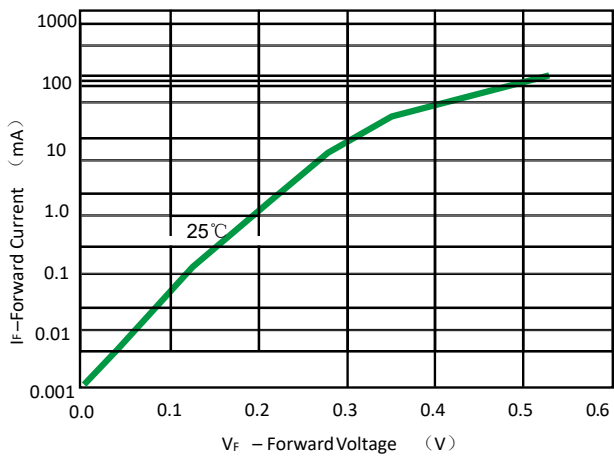


Fig 1. Forward Voltage

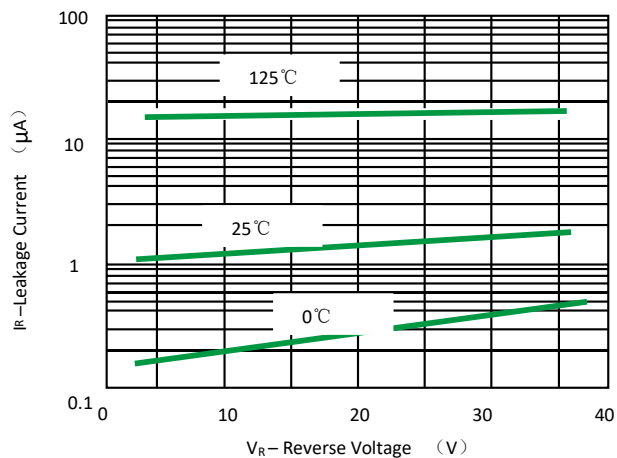


Fig 2. Leakage Current

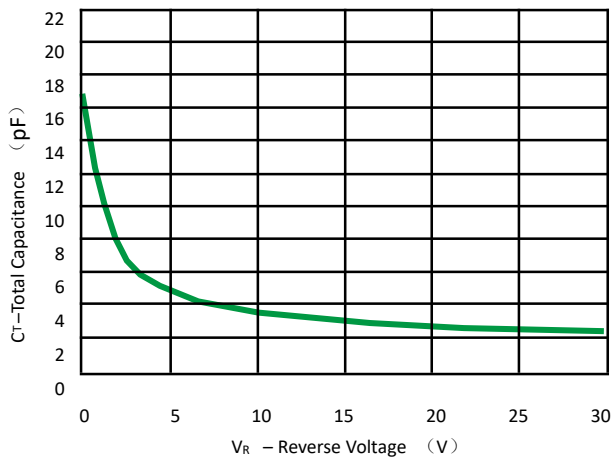
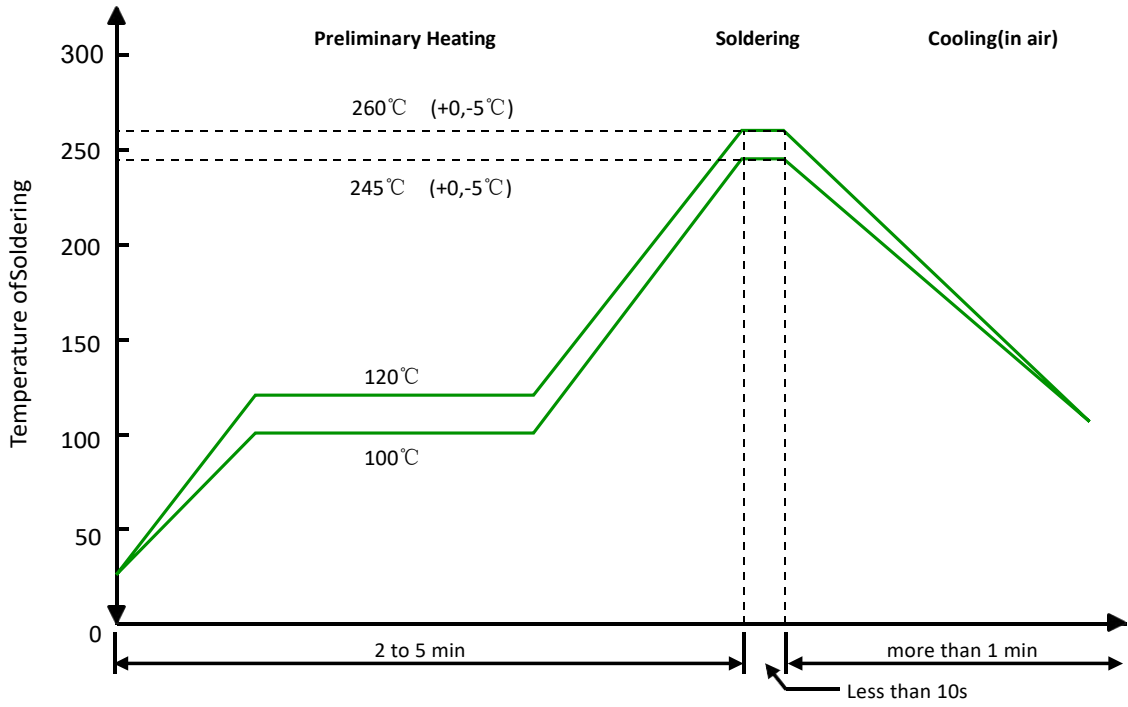


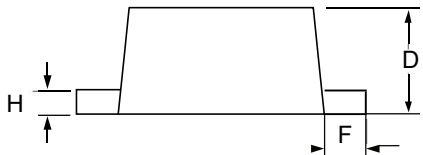
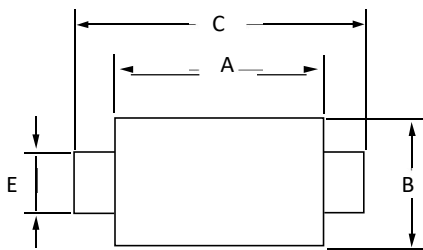
Fig 3. Total Capacitance

**Solder Reflow Recommendation**

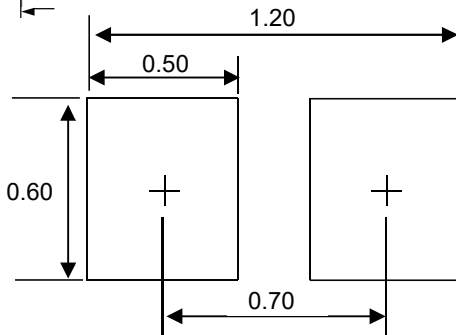


Remark: Pb free for 260°C; Pb for 245°C.

**Product dimension (SOD-923)**



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.030	0.033	0.75	0.85
B	0.022	0.026	0.55	0.65
C	0.037	0.041	0.95	1.05
D	0.014	0.017	0.36	0.43
E	0.006	0.010	0.15	0.25
F	0.002	0.006	0.05	0.15
H	0.003	0.007	0.07	0.17



Unit:mm

**Suggested PCB Layout**

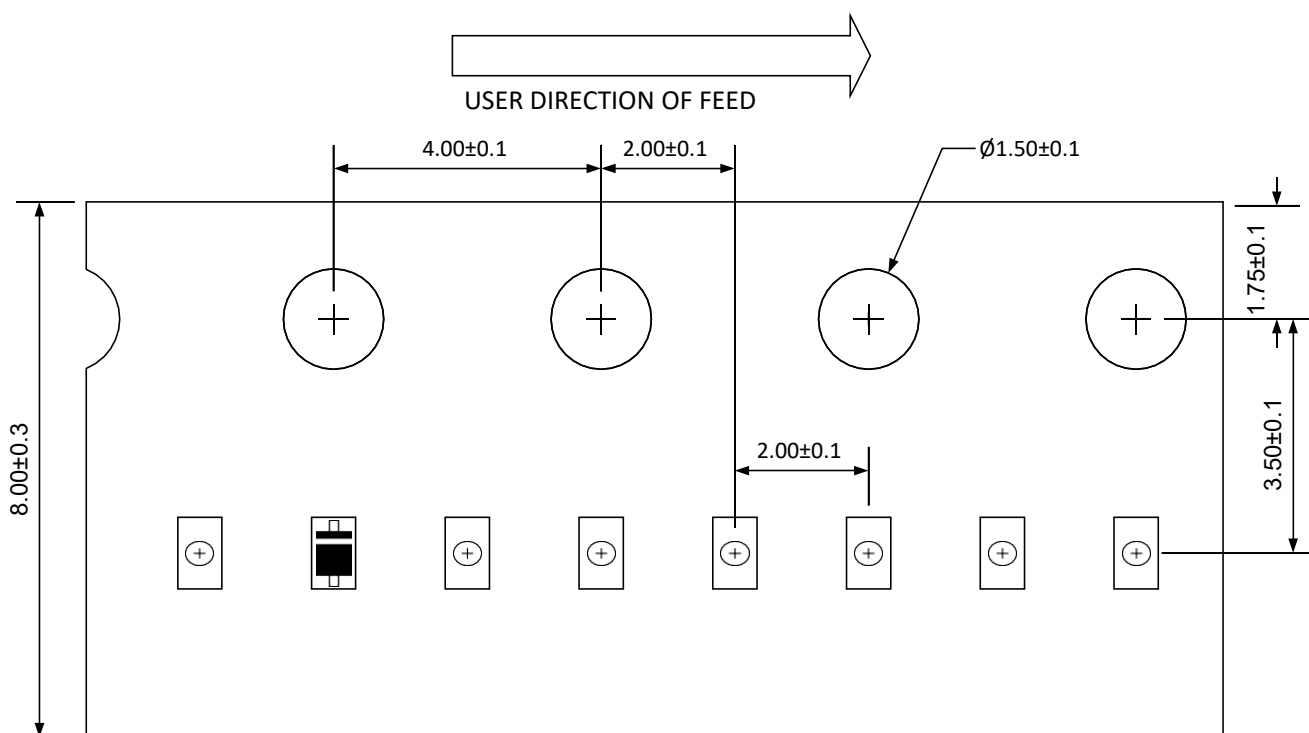
**Ordering information**

Device	Package	Reel	Shipping
RB521CS-30	SOD-923 (Pb-Free)	7"	8000 / Tape & Reel

**Marking**



**Load with information**



Unit:mm