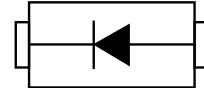


Feature

- Ultra Small mold type. (SOD-123)
- Low I_R
- High reliability.


Applications

- Low current rectification

Construction

- Silicon epitaxial planar

Mechanical Characteristics

- Lead finish:100% matte Sn(Tin)
- Mounting position: Any
- Qualified max reflow temperature:260°C
- Device meets MSL 1 requirements
- Pure tin plating: 7 ~ 17 μm
- Pin flatness : $\leq 3\text{mil}$

Electrical characteristics per line@25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	V_F	-	-	0.4	V	$I_F=1\text{A}$
Reverse current	I_R	-	-	40	μA	$V_R=40\text{V}$

Absolute maximum rating@25°C

Parameter	Symbol	limits	Unit
Reverse voltage (DC)	V_{RM}	40	V
Average rectified forward current	I_o	1	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	25	A
Operating Junction temperature Range	T_j	-55 to 125	°C
Storage temperature	T_{stg}	-40 to +125	°C

Typical Characteristics

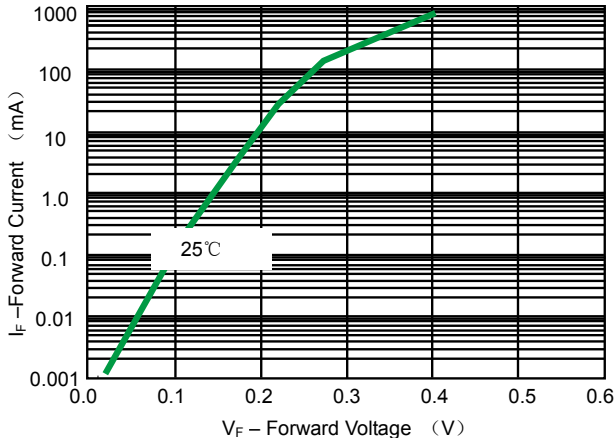


Fig 1. Forward Voltage

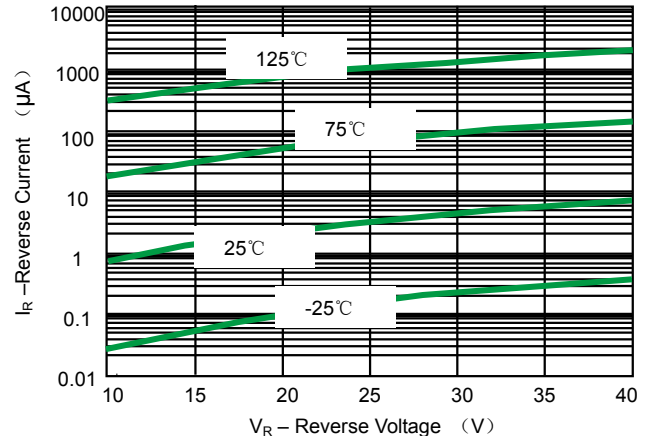


Fig 2. Leakage Current

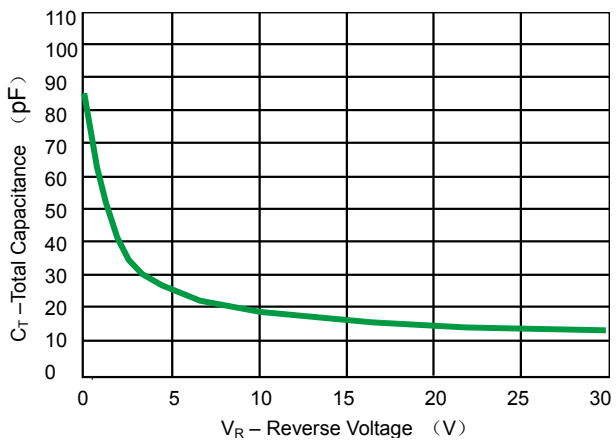
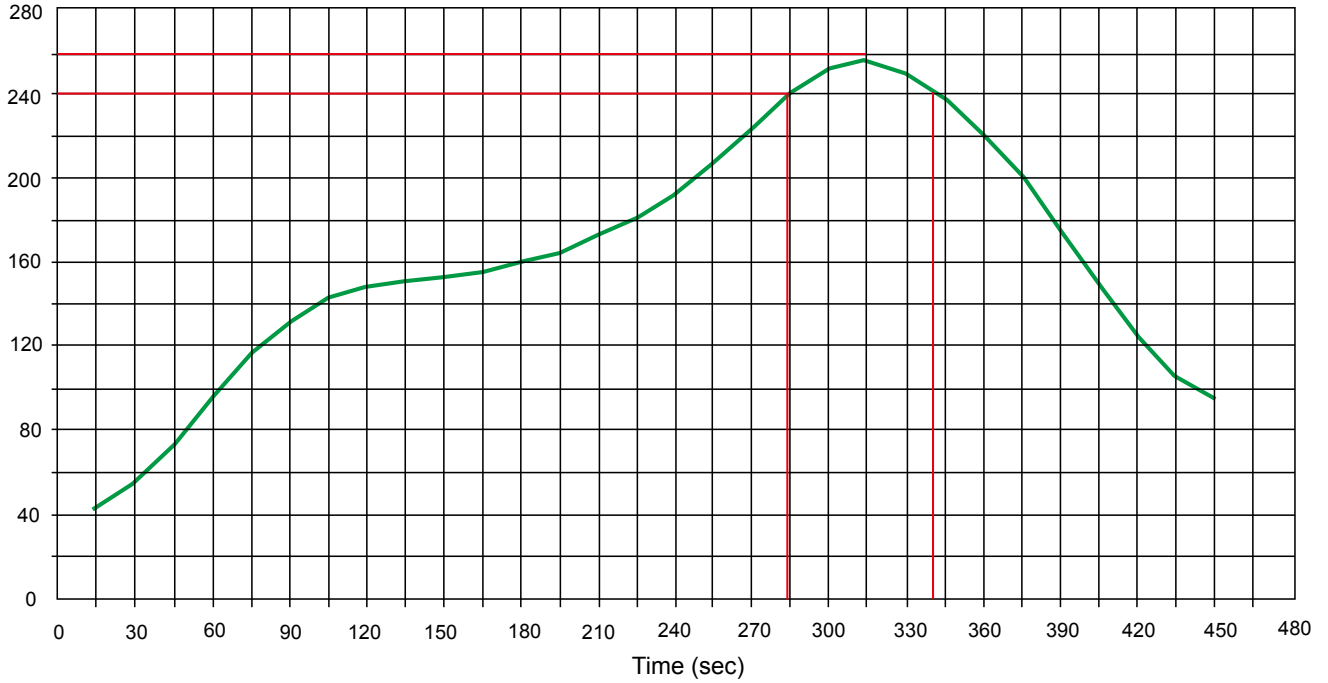


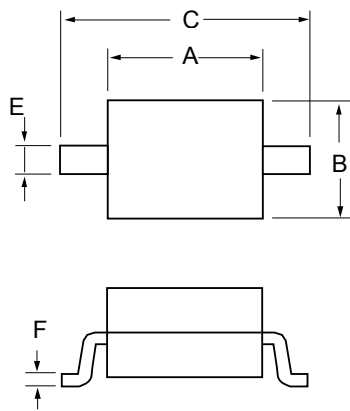
Fig 3. Total Capacitance

Solder Reflow Recommendation

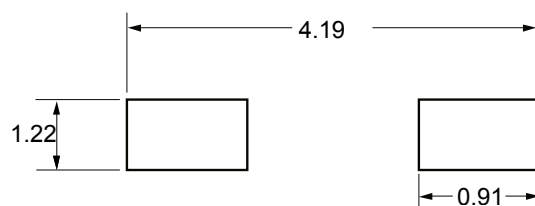
Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



Product dimension (SOD-123)



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.100	0.112	2.54	2.84
B	0.055	0.071	1.40	1.80
C	0.140	0.152	3.56	3.86
D	0.037	0.053	0.94	1.35
E	0.020	0.028	0.51	0.71
F	-	0.006	-	0.15
H	0.000	0.004	0.00	0.10




Unit:mm

Ordering information

Device	Package	Shipping
PSBD1D40V1H	SOD-123 (Pb-Free)	3000 / Tape & Reel


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