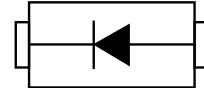


**Feature**

- 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 um
- Pin flatness : ≤3mil

**Electrical characteristics per line@25°C**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	-	0.45	V	$I_F=1A$
Reverse current	$I_R$	-	-	1.0	$\mu A$	$V_R=20V$

**Absolute maximum rating@25°C**

Parameter	Symbol	limits	Unit
Reverse voltage (DC)	$V_{RM}$	20	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

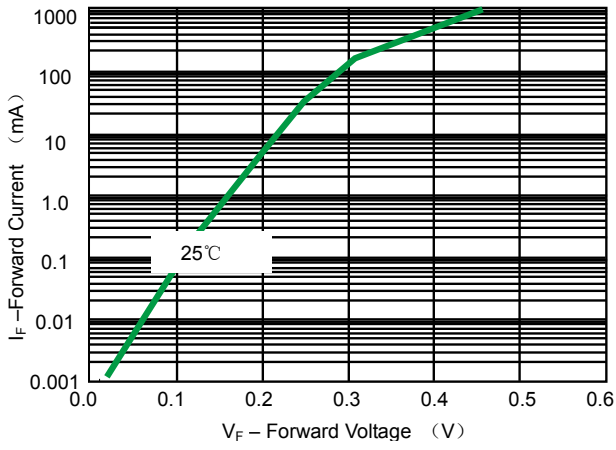


Fig 1. Forward Voltage

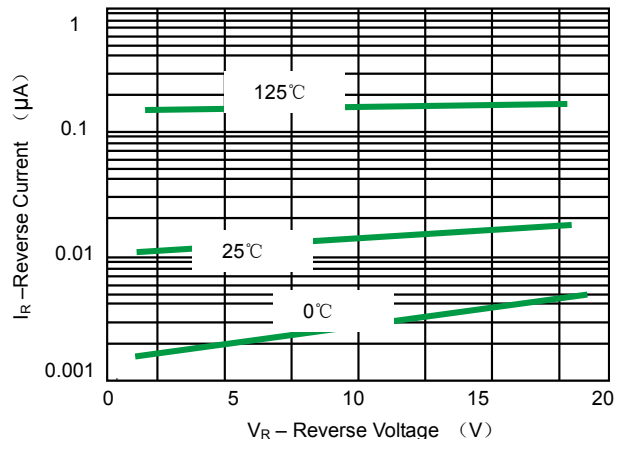


Fig 2. Leakage Current

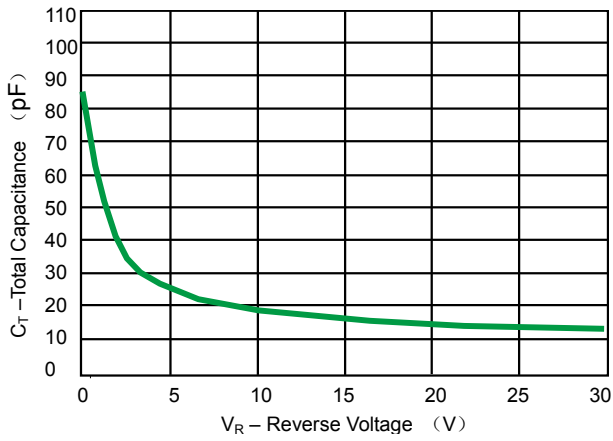
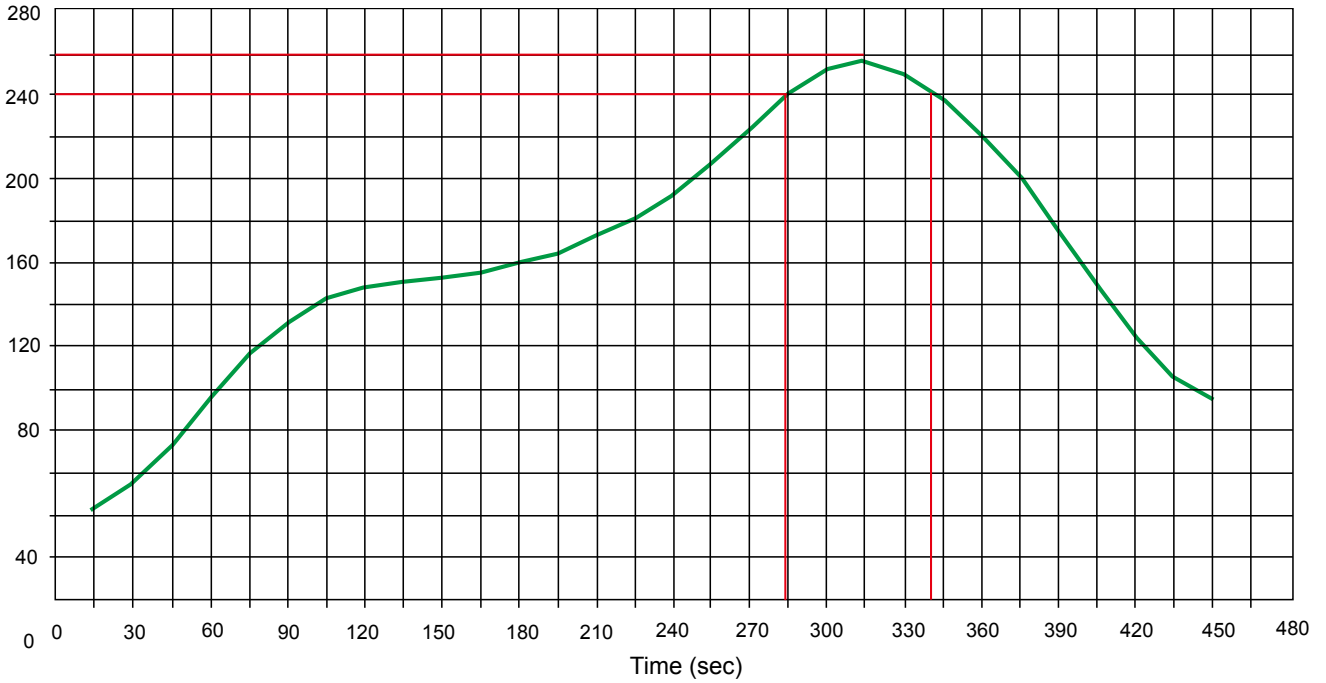


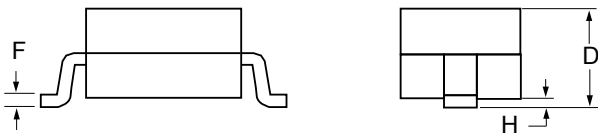
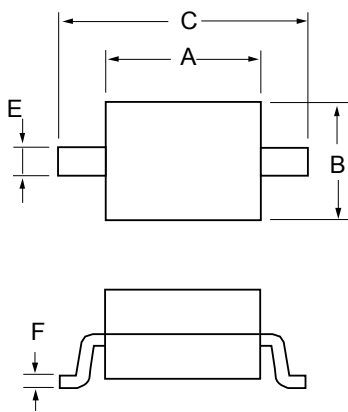
Fig 3. Total Capacitance

Solder Reflow Recommendation

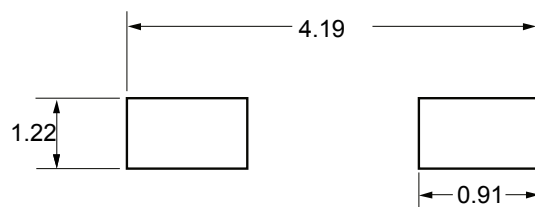
Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



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
PSBD1D20V	SOD-123 (Pb-Free)	3000 / Tape & Reel


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