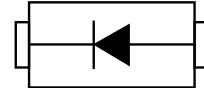


Feature

- Ultra Small mold type. SMC
- 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	-	-	0.55	V	$I_F=3A$
Reverse current	I_R	-	-	0.5	mA	$V_R=40V$

Absolute maximum rating@25°C

Parameter	Symbol	limits	Unit
Reverse voltage (DC)	V_{RM}	40	V
Average rectified forward current	I_o	3	A
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	80	A
Operating Junction temperature Range	T_j	-55 to 125	°C
Storage temperature	T_{stg}	-40 to +125	°C

Typical Characteristics

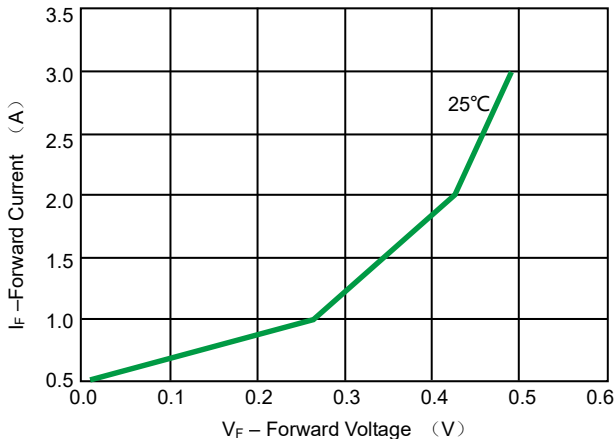


Fig 1. Forward Voltage

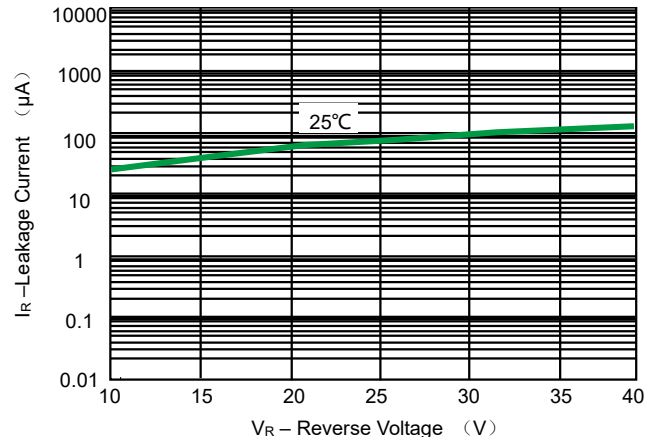


Fig 2. Leakage Current

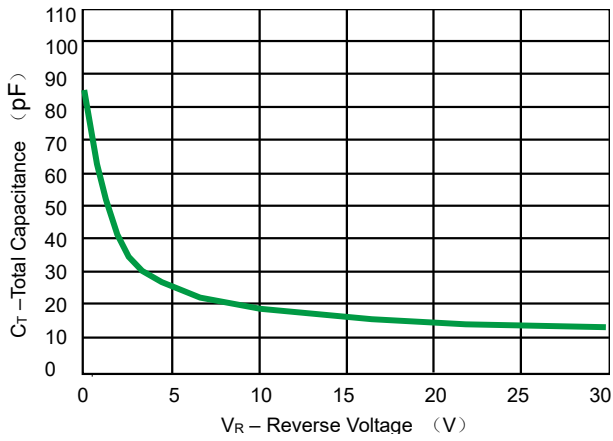
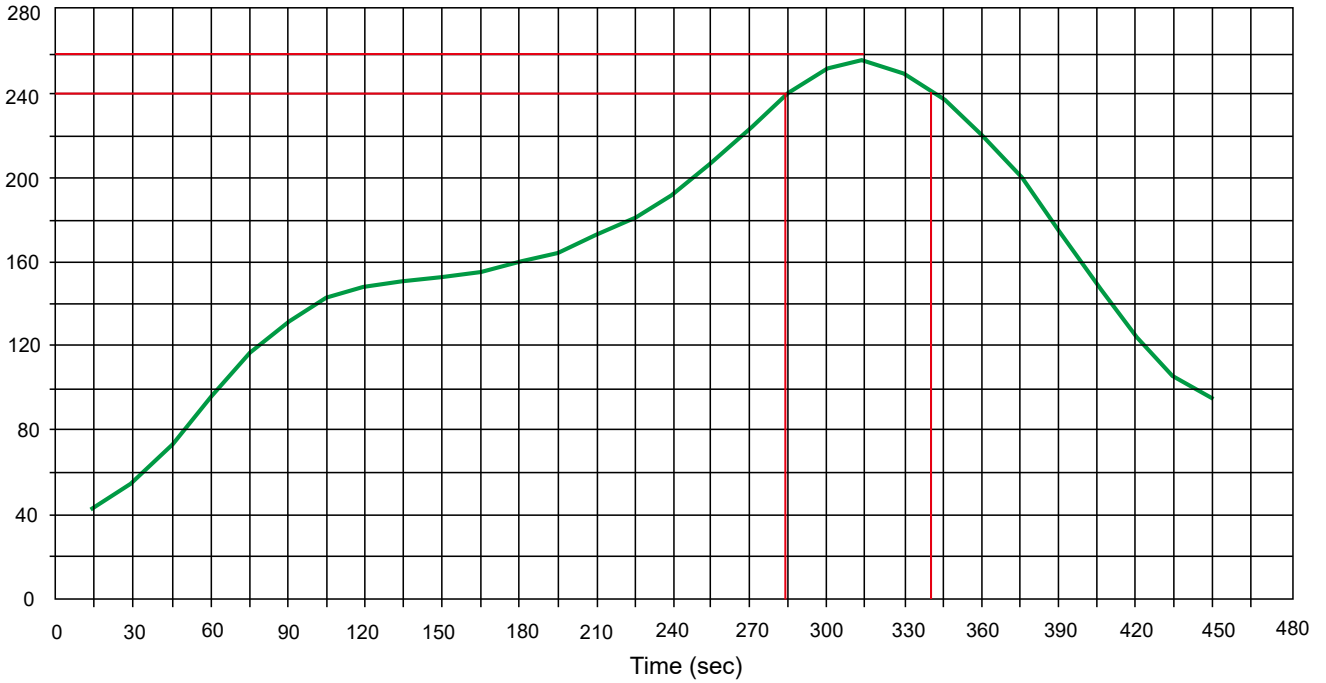


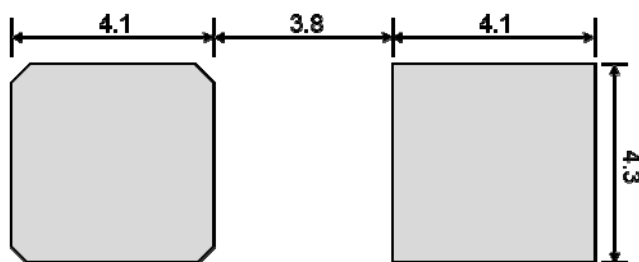
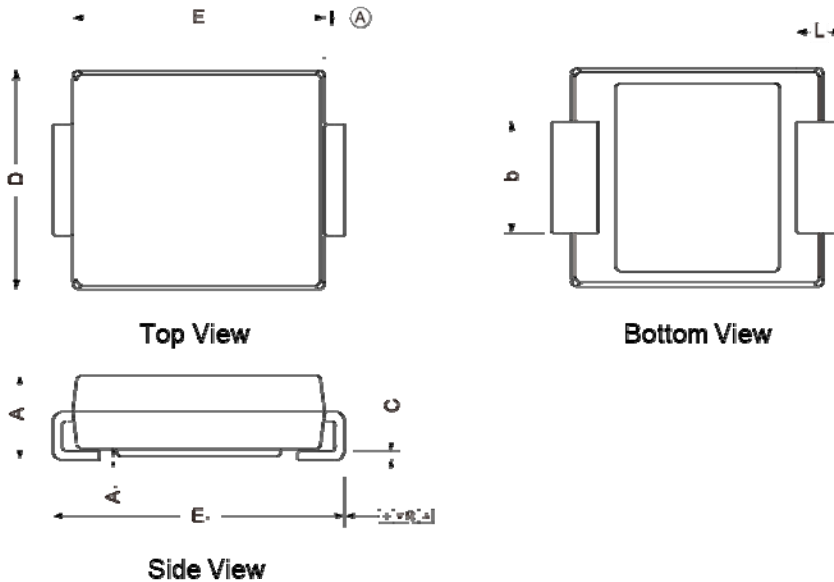
Fig 3. Total Capacitance

Solder Reflow Recommendation

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



Product dimension(SMC)



Suggested PCB Layout

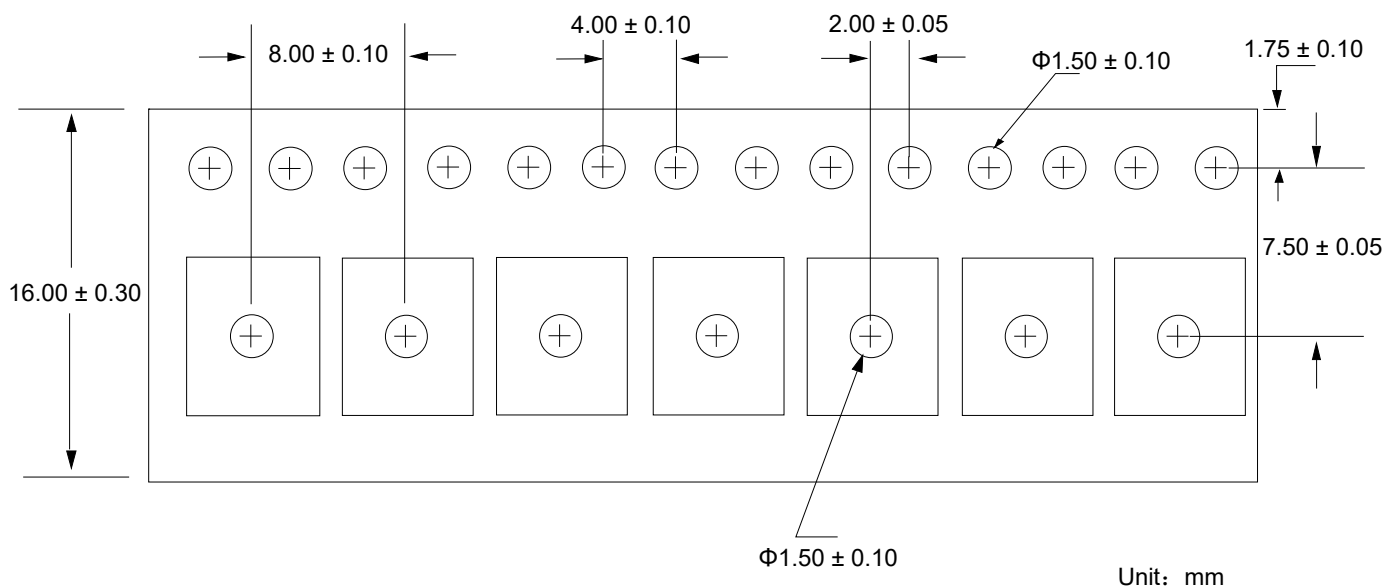
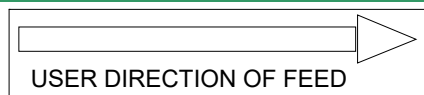
Unit:mm

Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	2.00	2.62	0.079	0.103
E	6.50	7.00	0.256	0.276
D	5.60	6.20	0.220	0.244
E ₁	7.50	8.00	0.299	0.315
A ₁	0.05	0.21	0.002	0.008
C	0.15	0.31	0.006	0.012
L	0.90	1.60	0.035	0.063
b	2.75	3.25	0.108	0.128


Ordering information

Device	Package	Reel	Shipping
PSBDC40V3	SMC (Pb-Free)	13"	3000 / Tape & Reel

Load with information




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