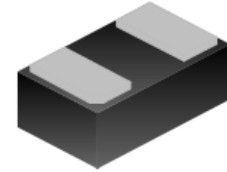


### Feature

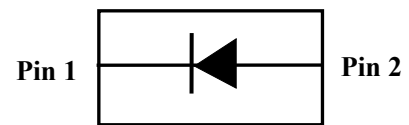
- Ultra Small mold type. (DFN1006-2L)
- Low  $I_R$
- High reliability.



**DFN1006-2L(Bottom View)**

### Applications

- Low current rectification



**Circuit Diagram**

### Construction

- Silicon epitaxial planar



**Marking (Top View)**

### Mechanical Characteristics

- Mounting position: Any
- Device meets MSL 1 requirements
- Qualified max reflow temperature:260°C
- DFN1006-2L without plating

### Electrical characteristics per line@25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Forward voltage	$V_F$	-	0.35	0.40	V	$I_F=100mA$
Forward voltage	$V_F$	-	0.45	0.50	V	$I_F=500mA$
Forward voltage	$V_F$	-	0.55	0.60	V	$I_F=1A$
Reverse current	$I_R$	-	-	3	$\mu A$	$V_R=10V$
Reverse current	$I_R$	-	-	0.1	mA	$V_R=40V$
Junction Capacitance	$C_j$	-	90	-	pF	$V_R=0V$ $f=1MHz$

## Absolute maximum rating@25°C

Parameter	Symbol	limits	Unit
Reverse voltage(repetitive peak)	$V_{RM}$	45	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current	$I_o$	1	A
Non-Repetitive Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	$I_{FSM}$	5	A

Parameter	Symbol	limits	Unit
Repetitive peak forward current ( $t_p \leq 1ms$ ; $\delta \leq 0.25$ )	$I_{FRM}$	5	A
Power Dissipation	PD	400	mW
Thermal resistance <sup>1)</sup>	$R_{\theta JA}$	310	°C/W
Operating Junction temperature Range	$T_j$	-55 to 125	°C
Storage temperature	$T_{stg}$	-55 to 125	°C

Note1:FR-4 PCB,minimum recommended pad layout.

## Typical Characteristics

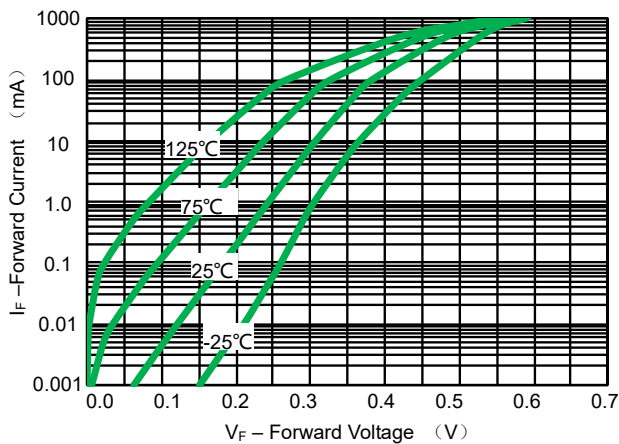


Fig 1.Forward Voltage

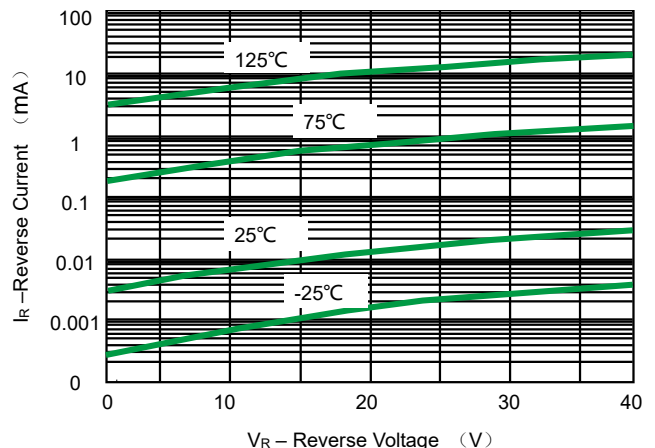


Fig 2.Leakage Current

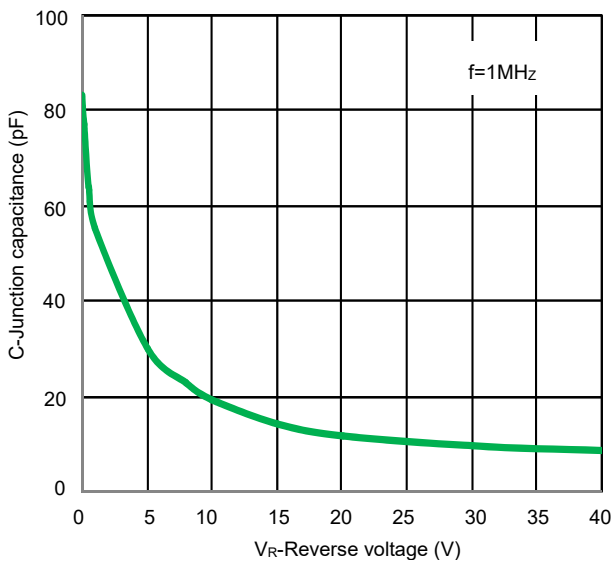
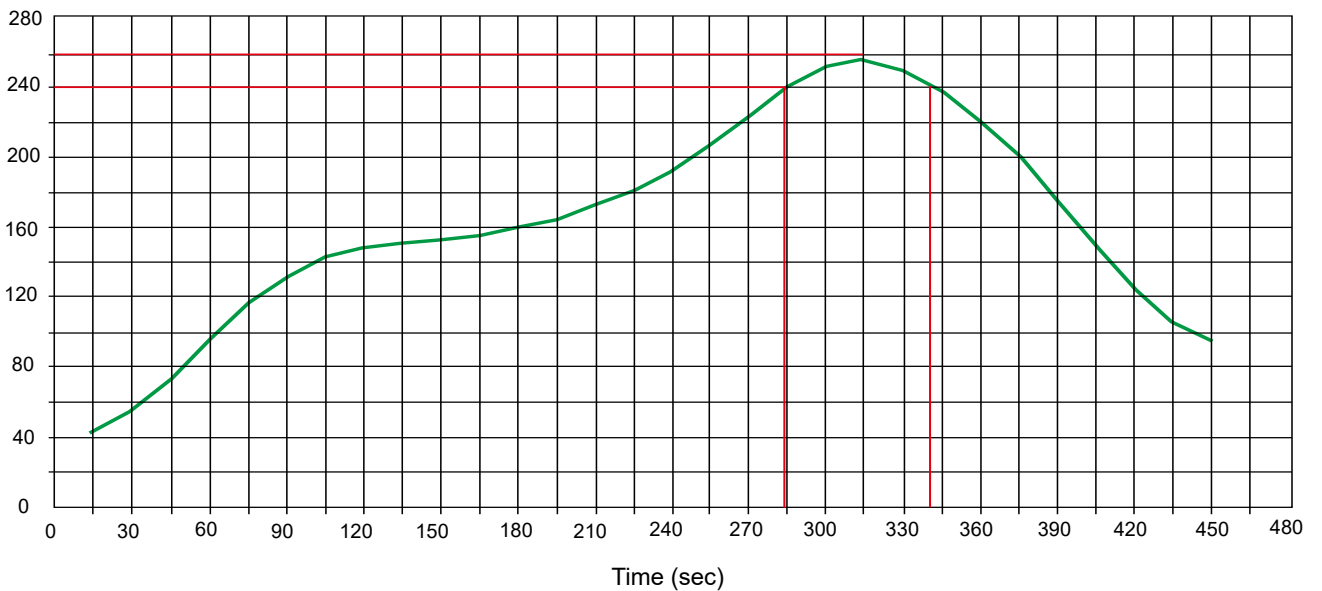


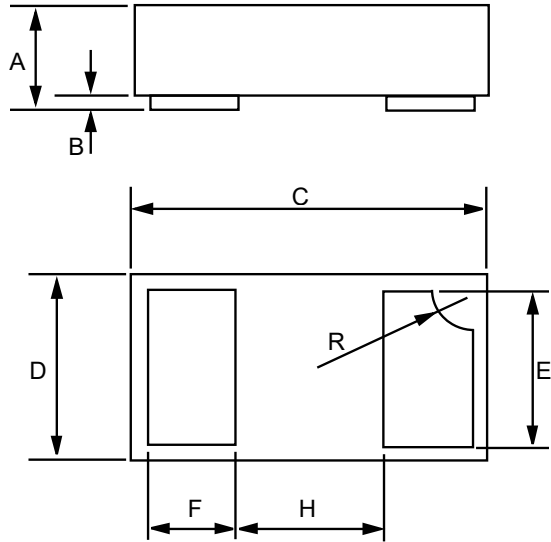
Fig 3. Capacitance vs. Reverses voltage

**Solder Reflow Recommendation**

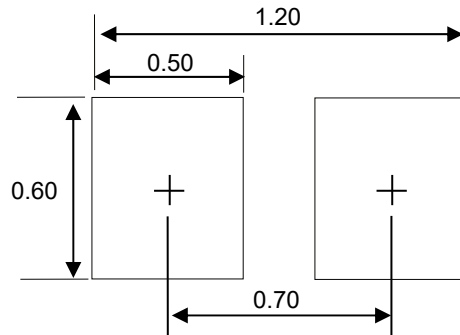
Peak Temp=257°C, Ramp Rate=0.802deg. °C/sec



Product dimension (DFN1006-2L)



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.013	0.020	0.34	0.498
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0.15



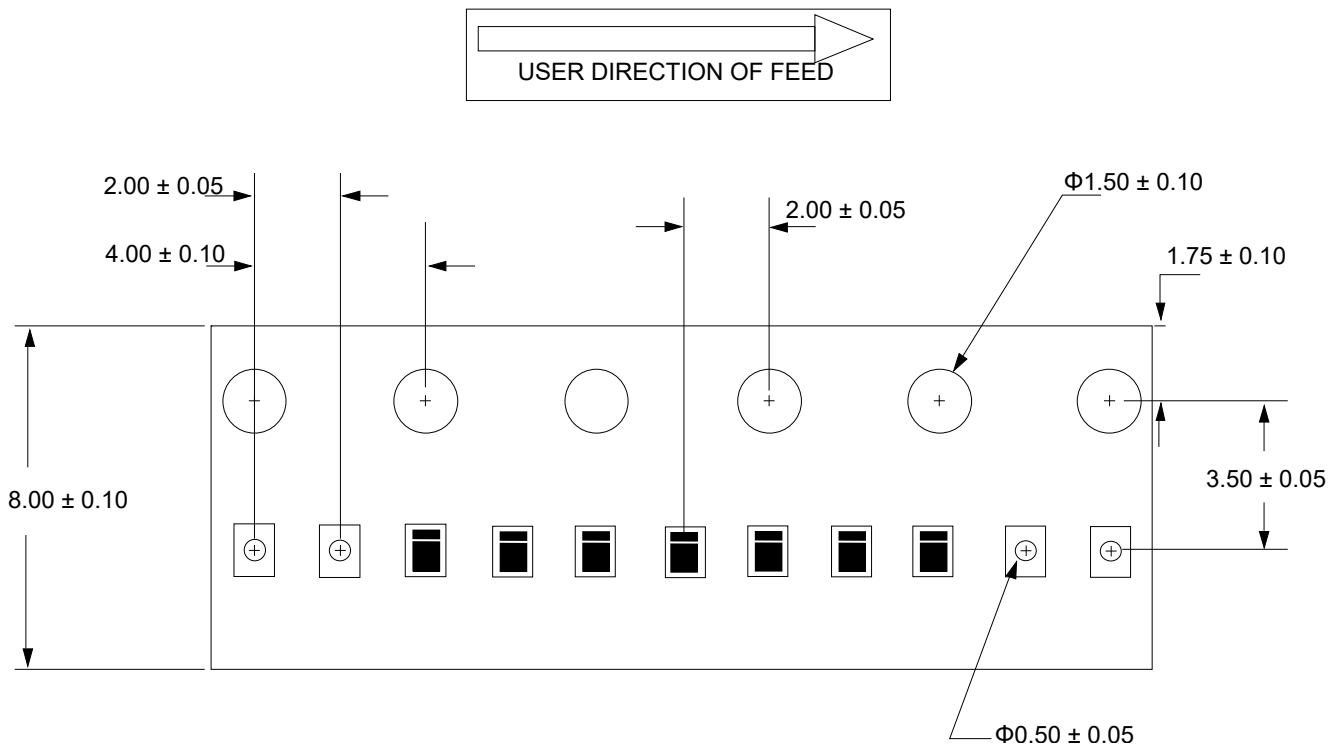
Unit:mm

Suggested PCB Layout

Ordering information


Device	Package	Reel	Shipping
PSBD2FD40V1H	DFN1006-2L (Pb-Free)	7"	10000 / Tape & Reel

Load with information



Unit: mm


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