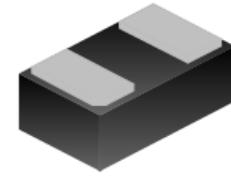
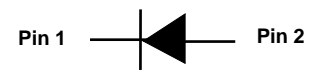


Feature

- Forward Current: 1A
- Reverse voltage: 20V
- Low forward voltage
- Low leakage current
- Trench MOS barrier Schottky technology
- Ultra Small mold type. (DFN1006-2L)


DFN1006-2L (Bottom View)
Applications

- Low current rectification
- Voltage clamping
- Protection circuits
- Ultra high-speed switching


Circuit Diagram

Marking (Top View)
Mechanical Characteristics

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

Electrical characteristics per line @ 25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward voltage	V_F	-	0.31	0.36	V	$I_F=10\text{mA}$
Forward voltage	V_F	-	0.38	0.43	V	$I_F=100\text{mA}$
Forward voltage	V_F	-	0.45	0.50	V	$I_F=500\text{mA}$
Forward voltage	V_F	-	0.51	0.56	V	$I_F=1\text{A}$
Reverse current	I_R	-	-	50	μA	$V_R=20\text{V}$
Junction Capacitance	C_J	-	90	-	pF	$V_R=0\text{V}$ $f=1\text{MHz}$

Absolute maximum rating@25°C

Parameter	Symbol	limits	Unit
Reverse voltage(repetitive peak)	V_{RM}	20	V
Reverse voltage (DC)	V_R	20	V
Average rectified forward current	I_o	1	A
Non-Repetitive Peak Forward SurgeCurrent(8.3ms single half sine-wave superimposed on rated load)	I_{FSM}	4.5	A

Parameter	Symbol	limits	Unit
Repetitive peak forward current ($t_p \leq 1ms$; $\delta \leq 0.25$)	I_{FRM}	3	A
Power Dissipation	PD	400	mW
Thermal resistance,Note1	$R_{\theta JA}$	250	°C/W
Operating Junction temperature Range	T_j	-55 to 125	°C
Storage temperature	T_{stg}	-55 to 125	°C

Typical Characteristics

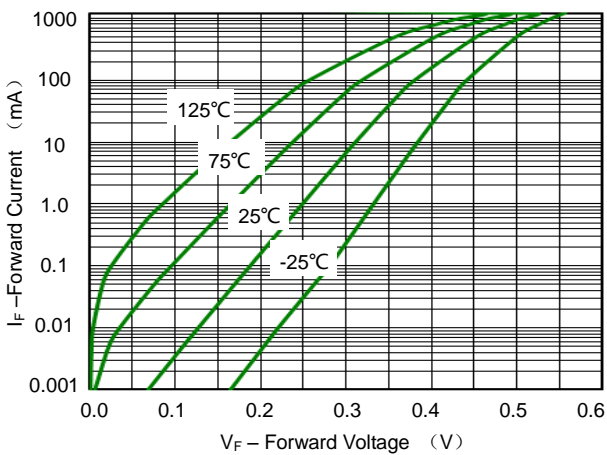


Fig 1. Forward Voltage

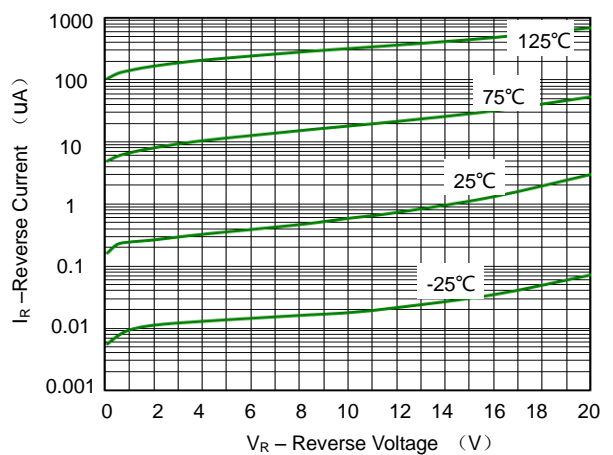


Fig 2. Leakage Current

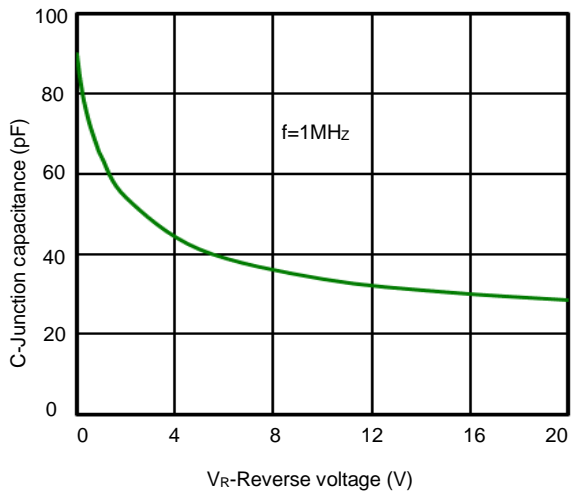
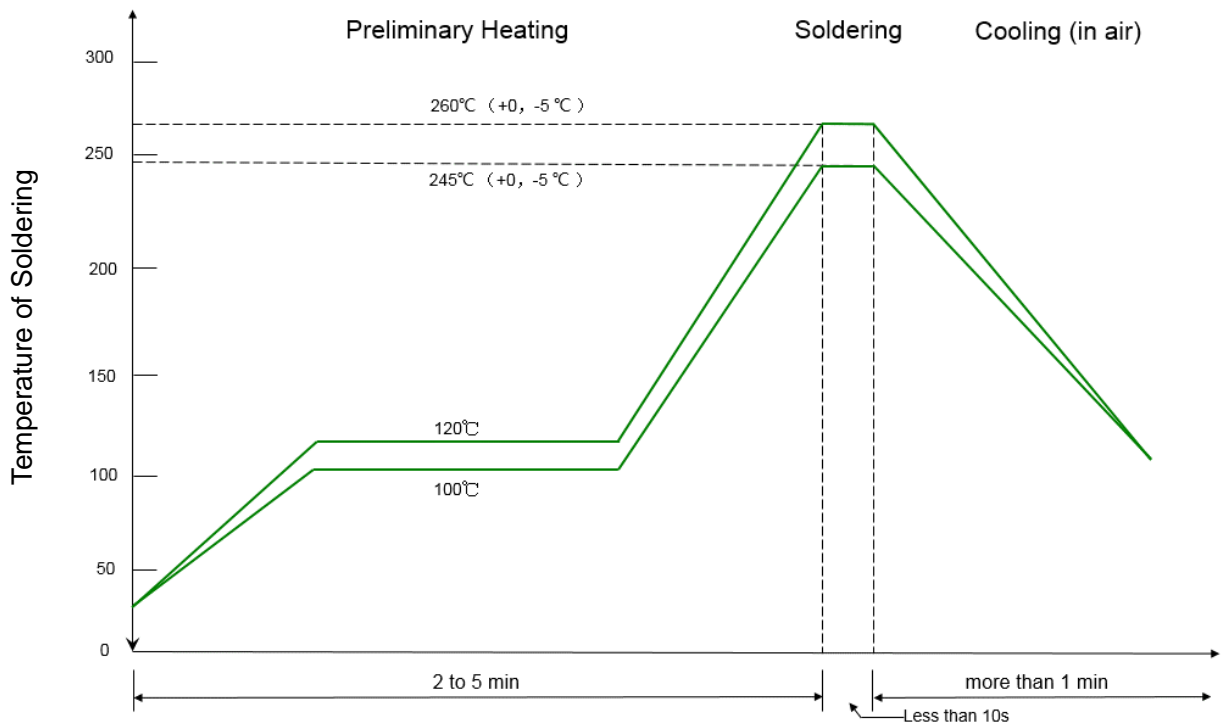


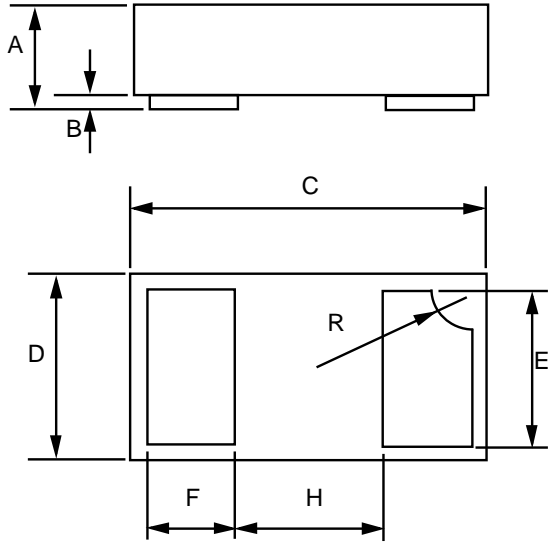
Fig 3. Capacitance vs. Reverses voltage

Solder Reflow Recommendation

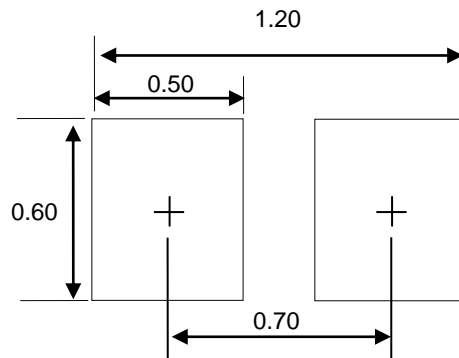


Remark: Pb free for 260°C; Pb for 245°C.

Product dimension (DFN1006-2L)



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.013	0.020	0.34	0.50
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

Ordering information

Device	Package	MPQ
PSBD2FD20V1H	DFN1006-2L (Pb-Free)	10000 / Tape & Reel

Load with information

