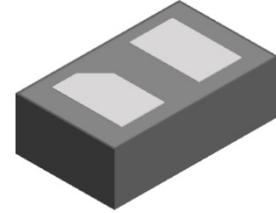


Feature

- Forward Current: 500mA
- Reverse voltage: 30V
- Low forward voltage
- Low leakage current
- Trench MOS barrier Schottky technology
- Ultra Small mold type. (DFN0603-2L)


DFN0603-2L(Bottom View)
Applications

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


Circuit Diagram
Mechanical Characteristics

- Mounting position: Any
- Qualified max reflow temperature:260°C
- Device meets MSL 1 requirements
- DFN0603-2L without plating


Marking (Top View)
Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Forward voltage	V_F	$I_F = 1\text{mA}$	-	0.25	0.29	V
		$I_F = 10\text{mA}$	-	0.32	0.36	
		$I_F = 100\text{mA}$	-	0.40	0.46	
		$I_F = 200\text{mA}$	-	0.46	0.52	
		$I_F = 500\text{mA}$	-	0.58	0.65	
Reverse current	I_R	$V_R = 10\text{V}$	-	-	1.5	μA
		$V_R = 30\text{V}$	-	-	8.0	
Junction Capacitance	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	25	-	pF

Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Reverse voltage (DC)	V_{RM}	30	V
Average rectified forward current	I_o	500	mA
Non-Repetitive Peak Forward Surge Current(8.3ms single half sine-wave superimposed on rated load)	I_{FSM}	4.5	A
Junction and Storage Temperature Range	T_J, T_{STG}	-55~+125	°C

Typical Characteristics

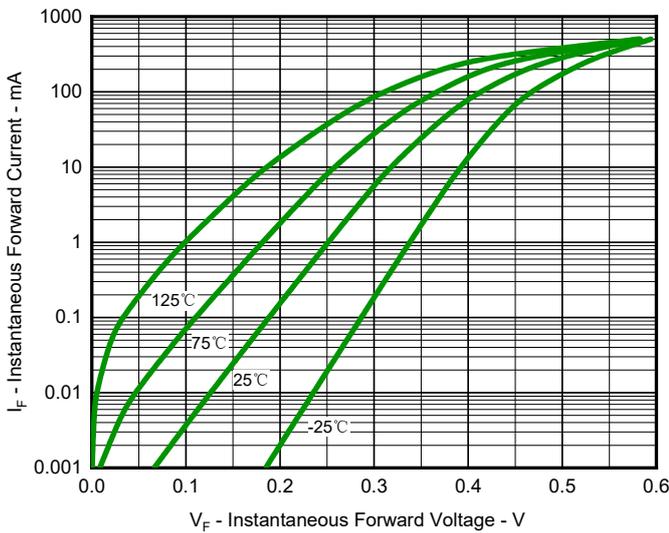


Fig.1 Typical Forward Characteristics

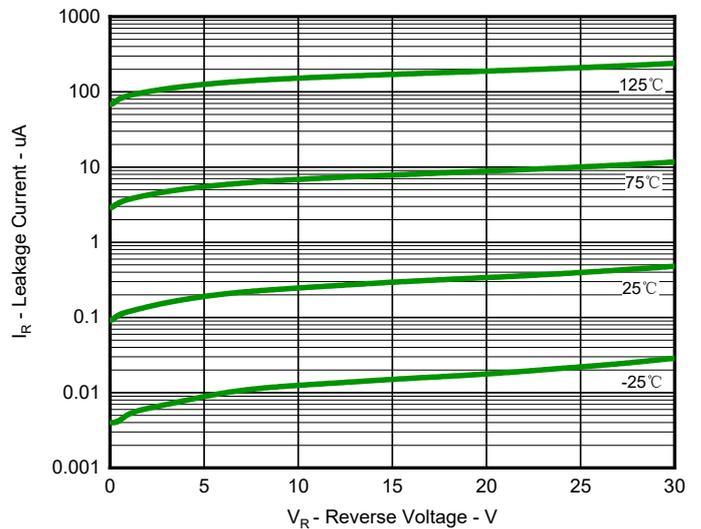


Fig 2. Leakage Current

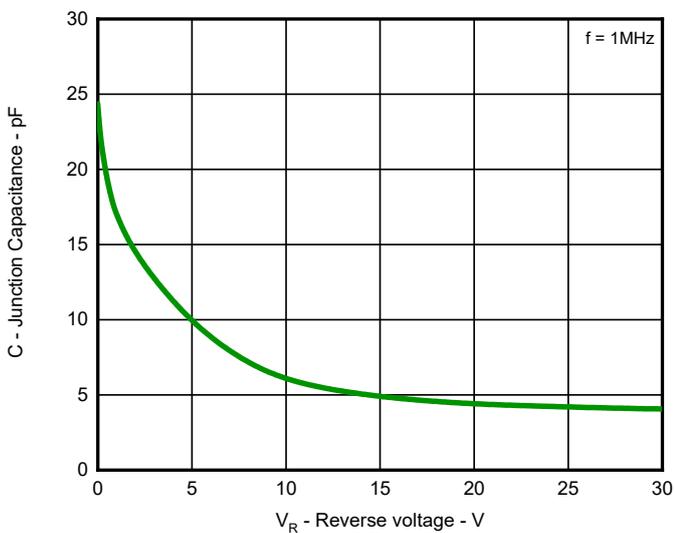
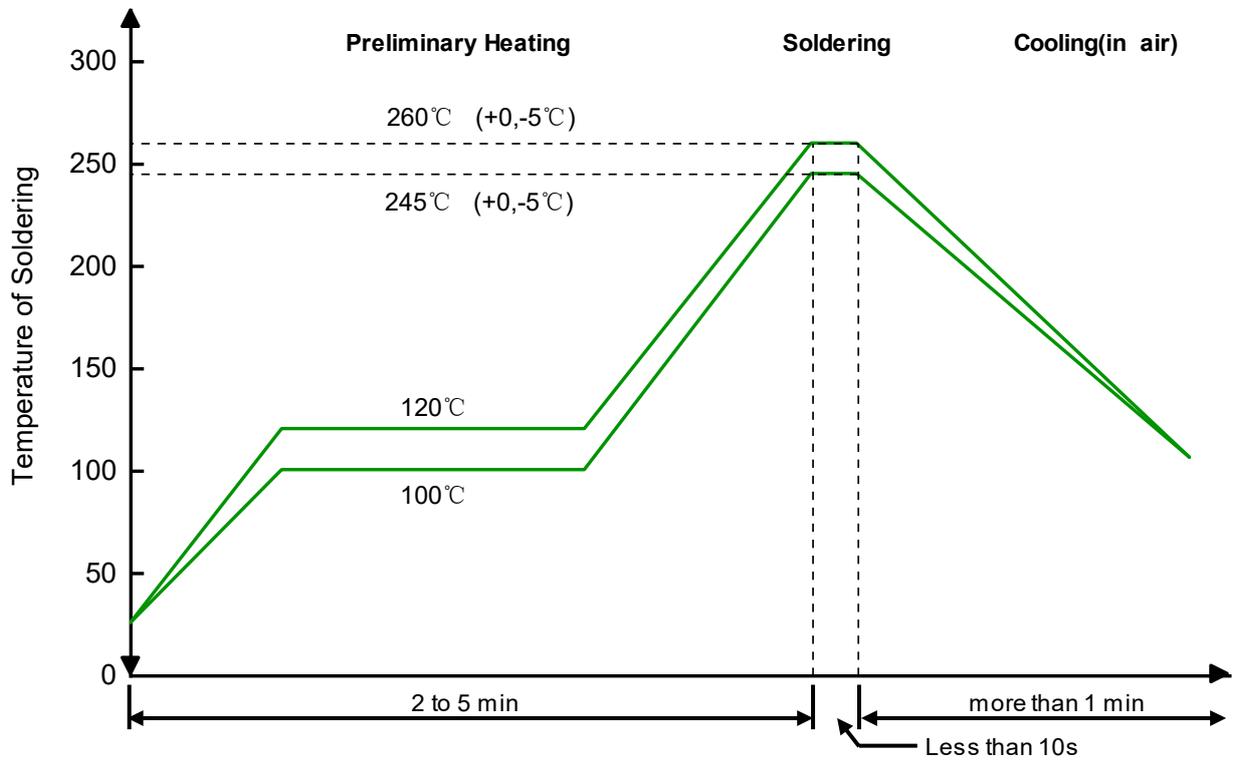


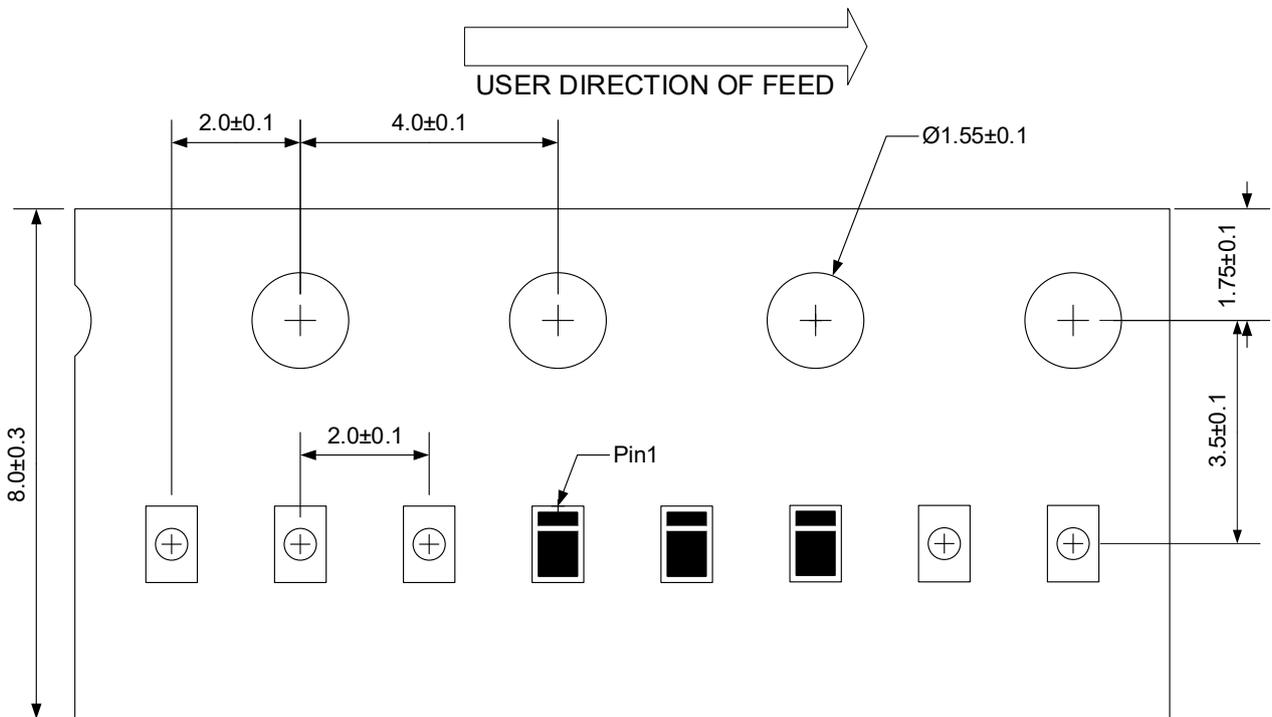
Fig 3.Capacitance vs. Revers voltage

Solder Reflow Recommendation



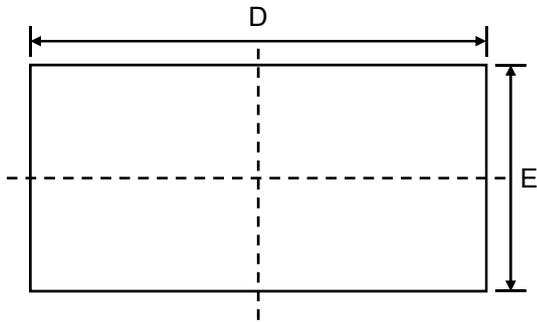
Remark: Pb free for 260°C; Pb for 245°C.

Load with information

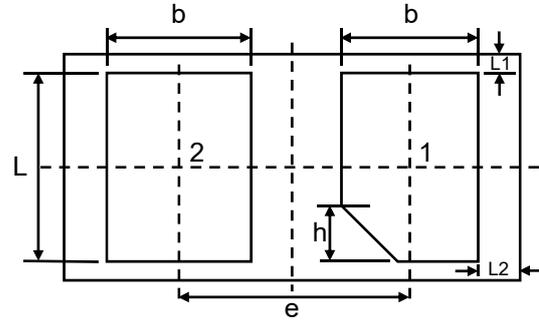


Unit:mm

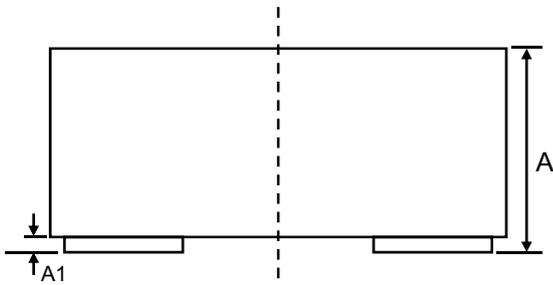
Product dimension (DFN0603-2L)



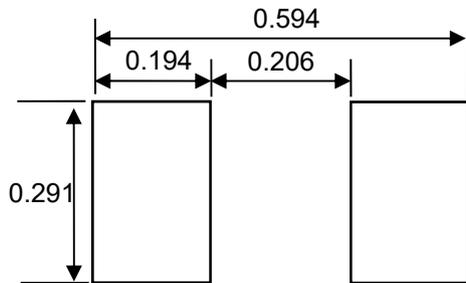
Top View



Bottom View



Side View



Unit:mm

Suggested PCB Layout

Dim	Millimeters		Inches	
	Min	Max	Min	Max
A	0.28	0.34	0.011	0.013
A1	0.00	0.05	0.000	0.002
b	0.12	0.18	0.005	0.007
D	0.59	0.64	0.023	0.025
e	0.40 BSC		0.016 BSC	
L1	0.038 Ref.		0.001 Ref.	
L2	0.038 Ref.		0.001 Ref.	
E	0.29	0.34	0.011	0.013
L	0.22	0.28	0.009	0.011
h	0.035	0.10	0.001	0.004

Ordering information

Device	Package	Reel	Shipping
PSBD2XD30V05F	DFN0603-2L (Pb-Free)	7"	12000 / Tape & Reel

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