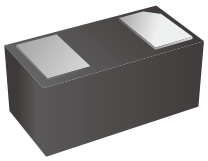
Schottky Barrier Diode

Features



DFN1610-2L

- Low Forward Voltage Drop
- Extremely Small DFN1610-2L Package
- Surface Device Type Mounting
- RoHS Compliant
- Green EMC
- Band Indicates Cathode
- Marking: JU4

Applications

- Low voltage rectification
- Reverse polarity protection
- Low power consumption applications

Absolute Maximum Ratings (TA=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
V_{RRM}	Maximum repetitive reverse voltage	40	V
V_R	Maximum DC blocking reverse voltage	40	V
$I_{F(AV)}$	Average Forward Current	1	A
I_{FSM}	Peak Forward Surge Current (At 8.3ms single half sine-wave)	20	A
T_J	Operating Junction Temperature	-50 to +125	°C
T_{STG}	Storage Temperature Range	-50 to +150	°C

These ratings are limiting values above which the serviceability of the diode may be impaired.

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Breakdown Voltage at I_R=0.1mA	V_{BR}	40			V
Reverse Leakage Current at V_R=40V	I_R			80	μA
Forward Voltage at I_F=1A	V_F		0.37	0.42	V
Forward Voltage at I_F=2A	V_F			0.50	V
Junction Capacitance V_R = 0V, f = 1MHz	C_J		340	400	pF

Characteristic Curves

Fig 1 Typical Forward Current Derating Curve

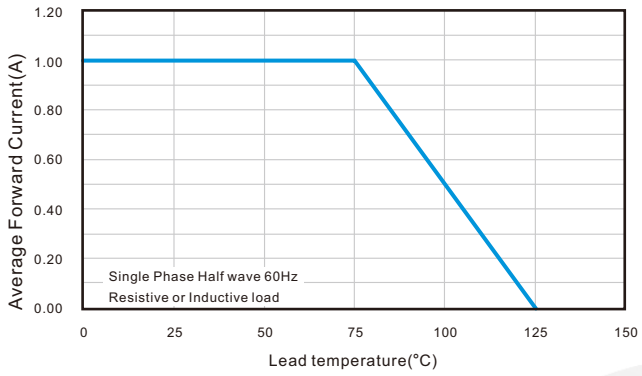


Fig 2 Total Capacitance vs. Reverse Volatge

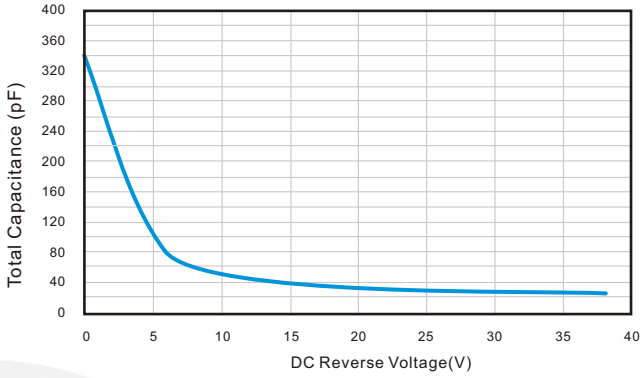


Fig 3 Typical Instantaneous Forward Characteristics

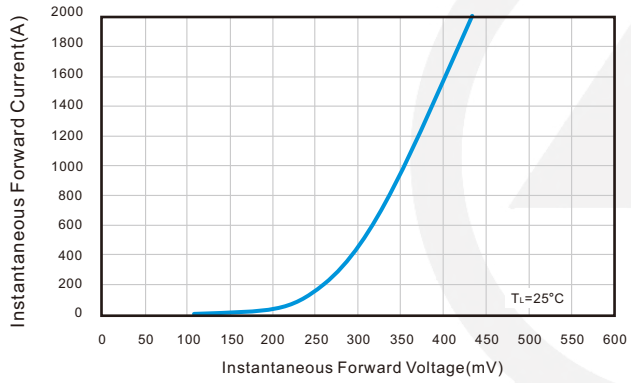
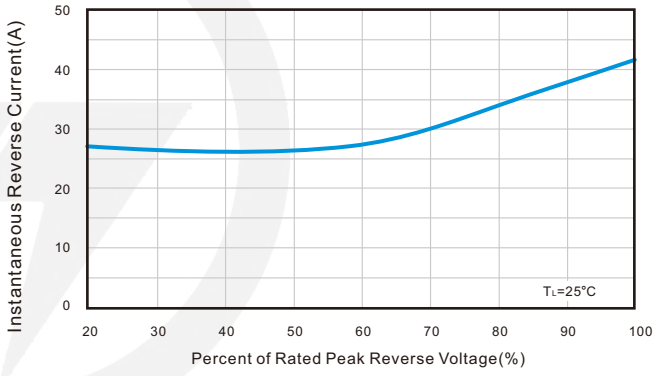
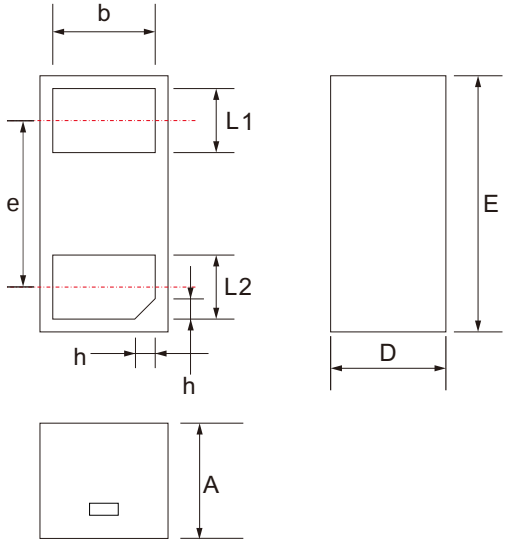


Fig 4 Typical Reverse Characteristics



DFN1610-2L Package Outline

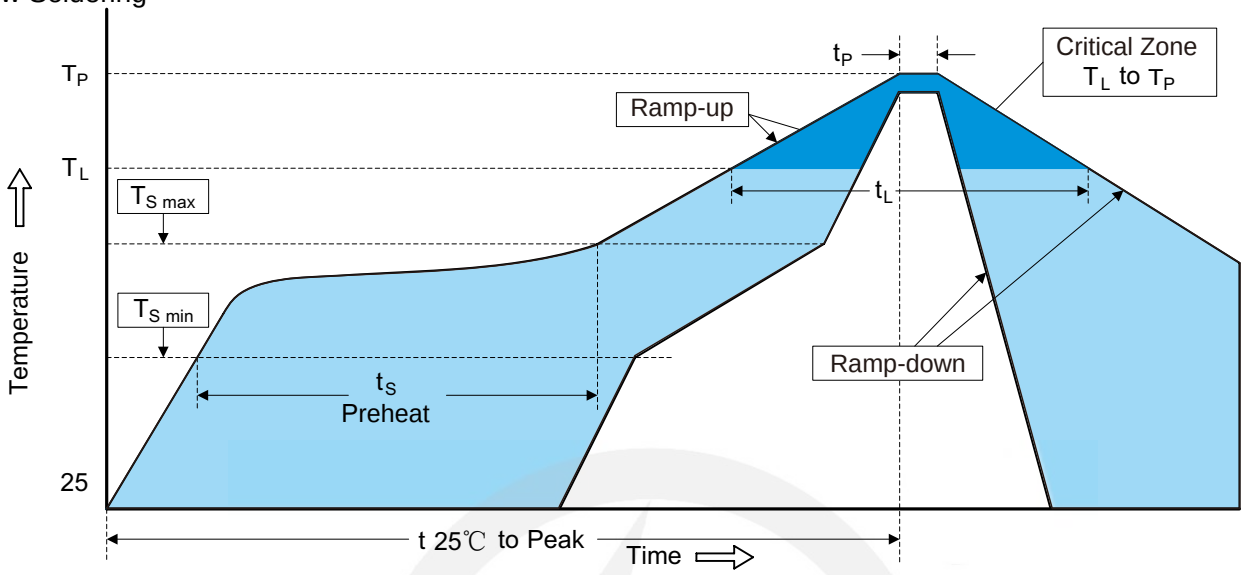


Unit: mm

SYMBOL	DIMENSIONS	
	MIN.	MAX.
D	0.950	1.050
E	1.550	1.650
L1	0.350	0.450
L2	0.350	0.450
b	0.750	0.850
e	1.090 TYP.	
A	0.450	0.550
h	0.150	0.250

Recommended Soldering Conditions

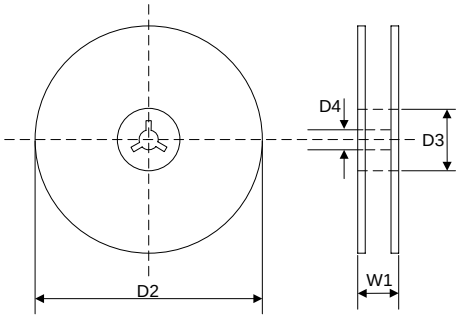
Reflow Soldering



Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3℃/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_S)	 150℃ 200℃ 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	 3℃/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	 217℃ 60-150 seconds
Peak Temperature (T_P)	260℃
Time within 5℃ of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

7” Reel



D2	Φ178.0±2.0
D3	Φ50.0Min.
D4	Φ13.0±0.5
W1	16.0±2.0
Quantity: 3000PCS	