

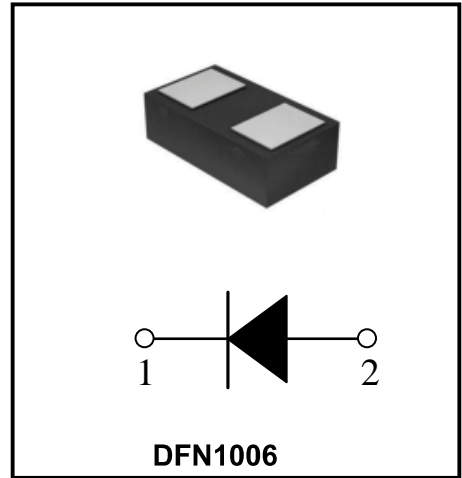
**Schottky Barrier Diode**

**Features**

- Extremely Small Surface Mount Package
- 200mA Average Rectified Forward Current
- Extremely Fast Switching Speed
- Low Forward Voltage
- High Reliability

**Application**

- High Speed Switching
- Low Current Rectification
- Inverse Polarity Protection



**Order Information**

Part Number	Marking	Package	Size (mm)	Delivery Form	Delivery Quantity
RB521BS-30	F	DFN1006	1.00x0.60x0.40	7" T&R	10,000 PCS/Tape

**Limiting Values(TA = 25 °C, unless otherwise specified)**

Symbol	Parameter	Limits Unit	Unit
<b>V<sub>RM</sub></b>	Reverse Voltage(Repetitive peak)	30	V
<b>V<sub>R</sub></b>	Reverse Voltage(DC)	30	V
<b>I<sub>o</sub></b>	Average Rectified Forward Current	200	mA
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	500	mA
<b>T<sub>j</sub></b>	Junction Temperature	125	°C
<b>T<sub>stg</sub></b>	Storage Temperature Range	-55~125	°C

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

Symbol	Parameter	conditions	Min	Typ.	Max	Unit
<b>I<sub>R</sub></b>	Reverse Current	V <sub>R</sub> = 10V			30	μA
<b>V<sub>BR</sub></b>	Breakdown Voltage	I <sub>T</sub> = 500μA	30			V
<b>V<sub>F</sub></b>	Forward Voltage	I <sub>F</sub> = 10mA			0.35	V
		I <sub>F</sub> = 20mA			0.38	V
		I <sub>F</sub> = 100mA			0.4	V
		I <sub>F</sub> = 200mA			0.5	V

**Typical Characteristics**

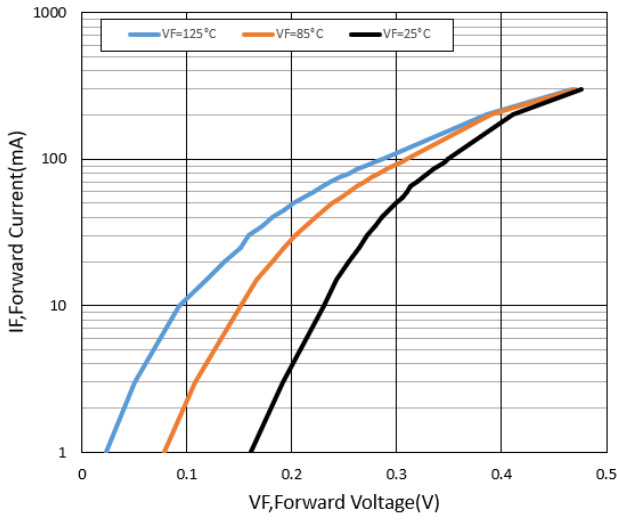


Fig.1 Forward Characteristics

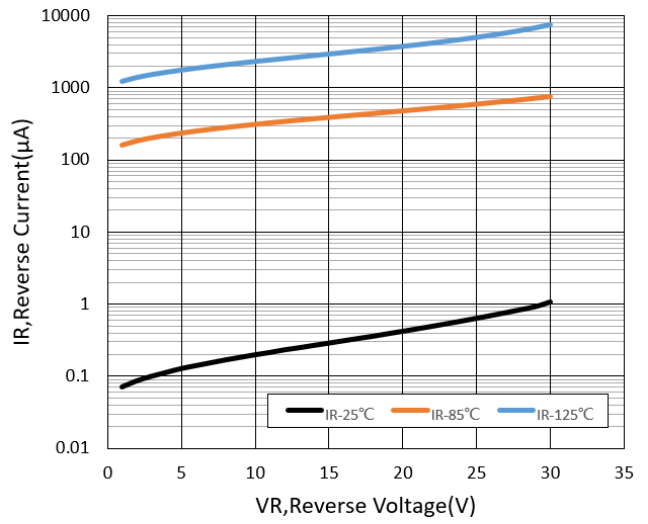


Fig.2 Reverse Characteristics

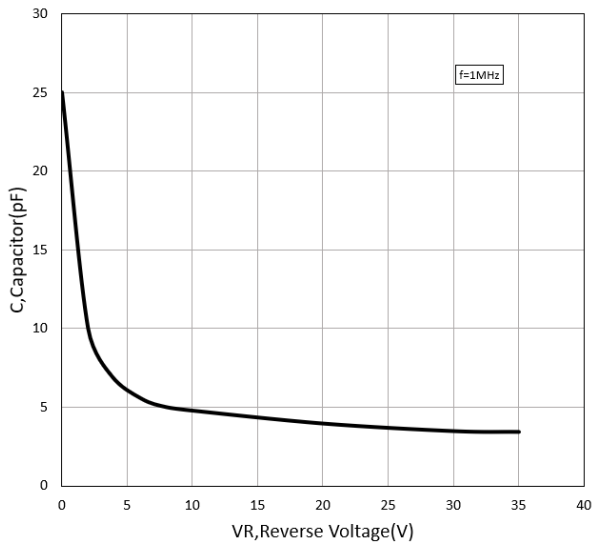
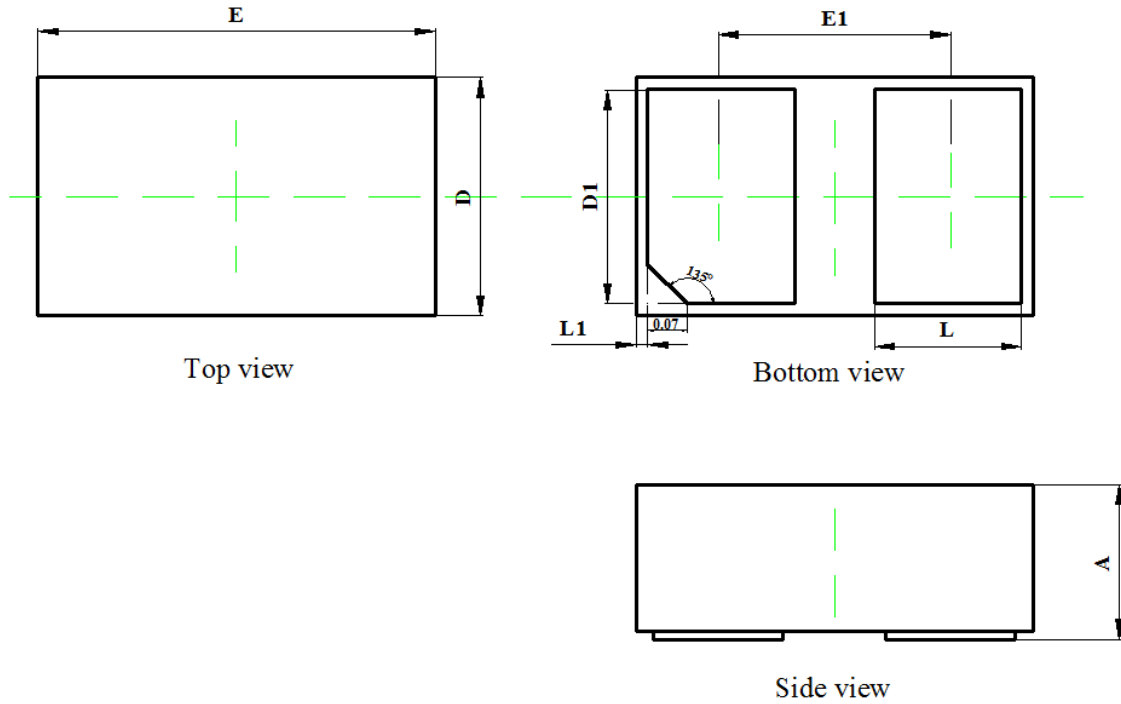


Fig.3 C-V Characteristics

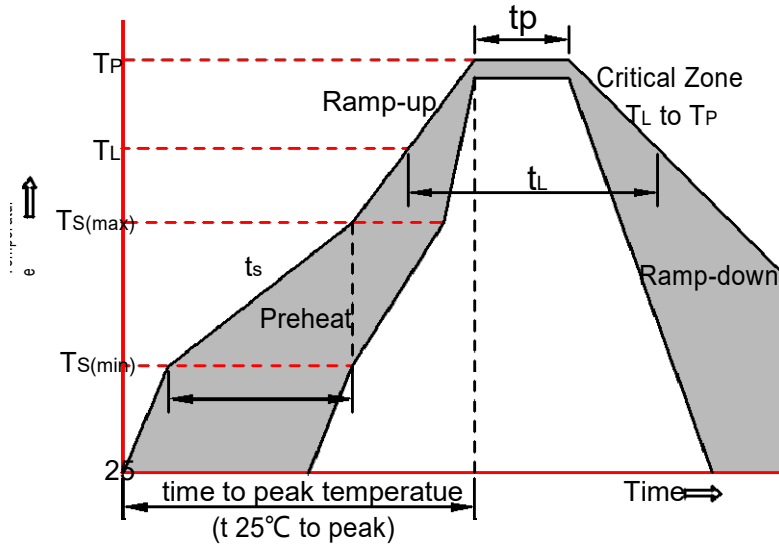
Package Outline

DFN1006



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
<b>A</b>	0.350	0.450	0.014	0.018
<b>D</b>	0.550	0.650	0.022	0.026
<b>E</b>	0.950	1.050	0.037	0.041
<b>D1</b>	0.420	0.520	0.017	0.020
<b>E1</b>	0.550	0.650	0.022	0.026
<b>L</b>	0.270	0.370	0.011	0.015
<b>L1</b>	0.000	0.100	0.000	0.004

**Soldering Parameters**



Reflow Condition		Pb-Free Assembly
Pre-heat	-Temperature Min (Ts(min))	+150°C
	-Temperature Max(Ts(max))	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (TL) to peak)		3°C/sec. Max
Ts(max) to TL - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(TL)(Liquid us)	+217°C
	-Temperature(tL)	60-150 secs.
Peak Temp (Tp)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (tp)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
xTime 25°C to Peak Temp (TP)		8 min. Max
Do not exceed		+260°C