Features

* Low forward voltage drop
* Low reverse current
* RoHS Compliant
* REACH & SVHC Compliant
* Halogen Compliant
* DFN1006-2L Package

Package and Marking Diagram

DFN1006-2L

Top view

Circuit Diagram

Ordering Information

Part Number	Packaging	Reel Size
DB2G40800L1-CN	10000/Tape & Reel	7 inch

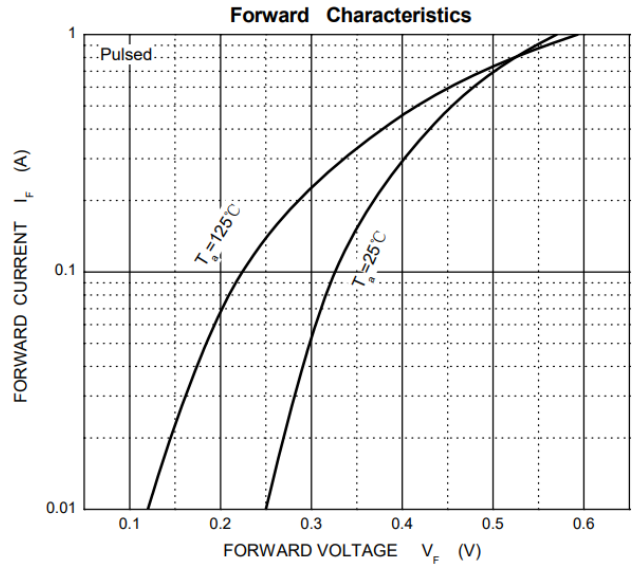
Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

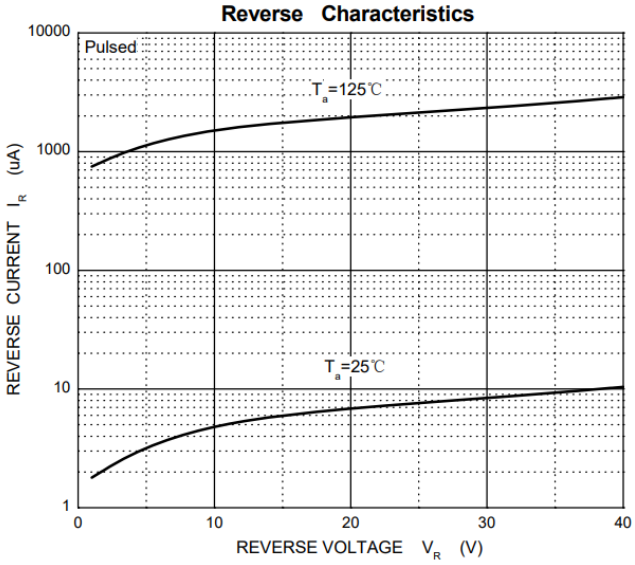
Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	40	V
DC blocking voltage	V_R	40	V
RMS reverse voltage	$V_{R(RMS)}$	28	V
Continuous forward current	I_O	1	A
Non-repetitive peak forward current @ t=8.3ms	I_{FSM}	7	A
Power dissipation	P_D	500	mW
Junction temperature	T_J	−40 to +125	°C
Storage temperature	T_{STG}	−55 to +150	°C

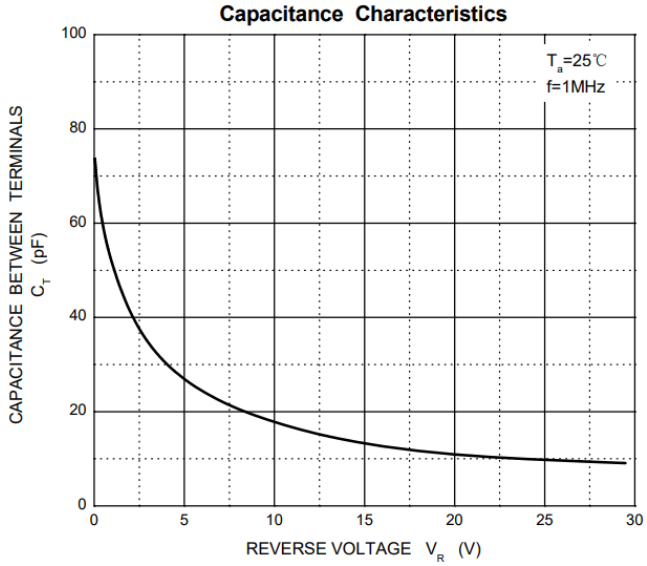
Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	V_{BR}	I_T = 1mA	40			V
Reverse current	I_R	V_R = 40V		10	40	uA
Forward voltage	V_F	I_F = 0.1A		330	380	mV
Forward voltage	V_F	I_F = 0.5A		450	490	mV
Forward voltage	V_F	I_F = 1A		570	610	mV
Diode capacitance	C_D	V_R = 10V, f = 1MHz		19		pF

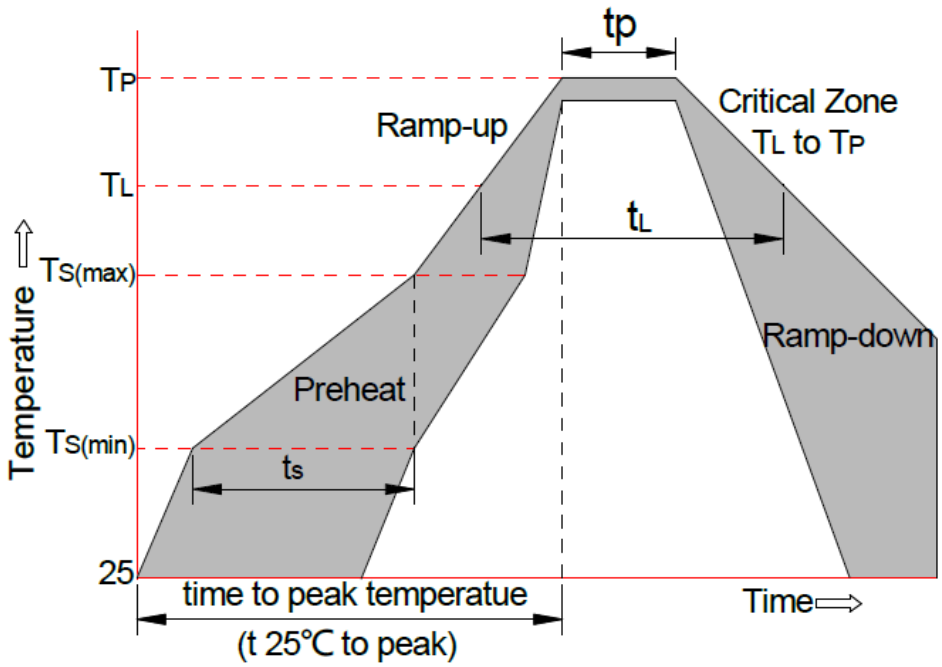
Typical Performance Characteristics





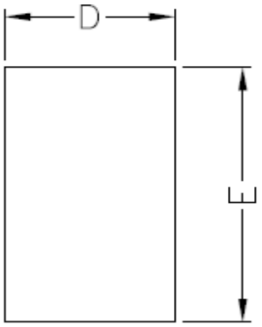


Soldering Parameters



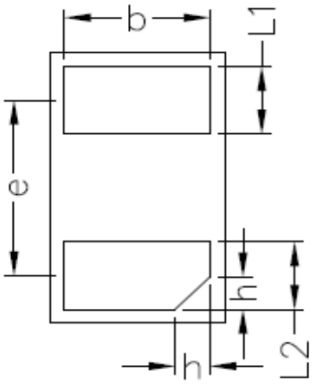
Reflow Conditions		Pb-Free Assembly
Pre-heat	-Temperature Min ($T_{s\ (min)}$)	+150°C
	-Temperature Max ($T_{s\ (max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs
Average ramp up rate(Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s\ (max)}$ to T_L-Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature (T_L) (Liquid us)	+217°C
	-Temperature (t_L)	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/secs. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

DFN1006-2L Package Outline Drawing

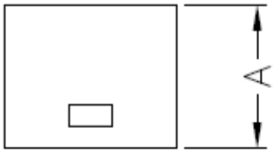


TOP VIEW

SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	Min	Typ	Max	Min	Typ	Max
A	0.50	0.55	0.60	0.020	0.022	0.024
D	0.55	0.60	0.65	0.022	0.024	0.026
E	0.95	1.00	1.05	0.037	0.039	0.041
L1	0.20	0.25	0.30	0.008	0.010	0.012
L2	0.20	0.25	0.30	0.008	0.010	0.012
b	0.45	0.50	0.55	0.018	0.020	0.022
e	0.65 BSC			0.026 BSC		
h	0.07	0.12	0.17	0.003	0.005	0.007

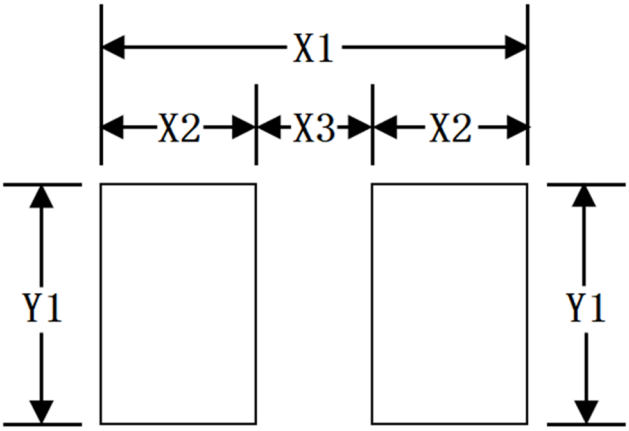


BOTTOM VIEW



SIDE VIEW

Suggested Land Pattern



SYM	DIMENSIONS	
	MILLIMETERS	INCHES
X1	1.10	0.044
X2	0.40	0.016
X3	0.30	0.012
Y1	0.60	0.024

Note:

1. General tolerance: ±0.05 mm or ±0.002 inch.
2. The land pattern is for reference purposes only.

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