

FEATURES

Miniaturized packaging size suitable for high-density applications:
nom 0.047" x 0.031" (1.2x0.8mm)
5% High-precision stabilized voltage stability
Power Dissipation of 225mW
High reliability chips and packaging processes
Low Zener Impedance
Wide Zener Reverse Voltage Range :2.4 V to 75 V
@Thermal Equilibrium
General Purpose, Medium Current

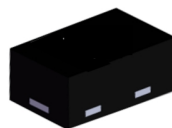
MECHANICAL DATA

Stabilizing Voltage
General Regulation Functions
High-density Devices

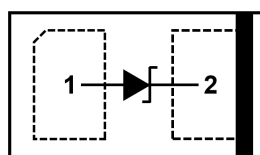
VOLTAGE RANGE

2.0 to 75 Volts

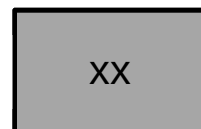
225 mW



DFN1006-2L(Pb-Free)



Schematic Diagram



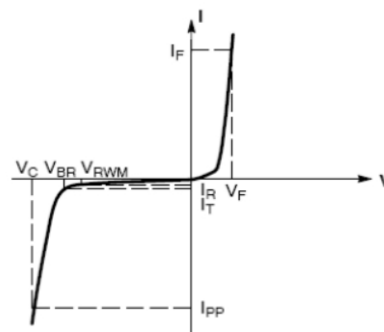
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Forward Voltage ($I_F=10\text{mA}$)	V_F	0.85	V
Total dissipated power (FR-5 version, Note 1)	P_D	225	mW
Thermal Resistance (FR-5 Board, Note 1)	$R_{\theta JA}$	556	$^\circ\text{C/W}$
Thermal resistance (AL substrate, note 2)	$R_{\theta JA}$	417	
Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$
Lead Solder Temperature – Maximum (10 Second Duration)	T_L	260	$^\circ\text{C}$

Electrical Characteristics($T_A=25^\circ\text{C}$ unless otherwise specific)

Symbol	Parameter
VZ	Reverse Zener Voltage @ IZ
IZ	Reverse Current
ZZ	Maximum Zener Impedance @ IZ
IR	Reverse Leakage Current @ VR
VR	Reverse Voltage



Characteristics at Ta = 25°C

Model Number	Marking	VZ(V)@IZ			IZ	ZZ			IR @VR	VR
						@IZ =1mA	@IZ =5mA	@IZ =20mA		
		Min.	Typ.	Max.	(mA)	(Ω)	(Ω)	(Ω)	(uA)	(V)
BZX884B2V4	A1	2.35	2.4	2.45	5	600	100	50	50	1
BZX884B2V7	A2	2.65	2.7	2.75	5	600	100	50	20	1
BZX884B3V0	A3	2.94	3	3.06	5	600	95	50	10	1
BZX884B3V3	A4	3.23	3.3	3.37	5	600	95	40	5	1
BZX884B3V6	A5	3.53	3.6	3.67	5	600	90	40	5	1
BZX884B3V9	A6	3.82	3.9	3.98	5	600	90	30	0.5	1
BZX884B4V3	A7	4.21	4.3	4.39	5	600	90	30	0.5	1
BZX884B4V7	A8	4.61	4.7	4.79	5	500	80	15	3	2
BZX884B5V1	A9	5	5.1	5.2	5	480	60	15	2	2
BZX884B5V6	AA	5.49	5.6	5.71	5	400	40	10	1	2
BZX884B6V2	AB	6.08	6.2	6.32	5	150	9.5	5.7	2.4	4
BZX884B6V8	AB	6.66	6.8	6.94	5	76	14.2	5.7	1.6	4
BZX884B7V5	AD	7.35	7.5	7.65	5	76	14.2	5.7	0.8	5
BZX884B8V2	AE	8.04	8.2	8.36	5	76	14.2	5.7	0.56	5
BZX884B9V1	AF	8.92	9.1	9.28	5	95	14.2	7.6	0.16	7
BZX884B10	AG	9.8	10	10.2	5	142.5	19	9.5	0.08	8
BZX884B11	AH	10.78	11	11.22	5	142.5	19	9.5	0.08	8
BZX884B12	AJ	11.76	12	12.24	5	150	23.7	9.5	0.08	8
BZX884B13	AK	12.74	13	13.26	5	170	28.5	14.2	0.08	8
BZX884B15	AL	14.7	15	15.3	5	190	28.5	19	0.04	11
BZX884B16	C1	15.68	16	16.32	5	190	38	19	0.04	11
BZX884B18	C2	17.64	18	18.36	5	213	42.7	19	0.04	13
BZX884B20	C3	19.6	20	20.4	5	213	52.2	19	0.04	14
BZX884B22	C4	21.56	22	22.44	5	237	52.2	23.7	0.04	15
BZX884B24	C5	23.52	24	24.48	5	250	66.5	23.7	0.04	17

Characteristics at Ta = 25°C

Model Number	Marking	VZ(V)@IZ			IZ	ZZ		IR @VR	VR
		Min.	Typ.	Max.		@IZK=0.5mA	@IZT=2mA		
					(mA)	(Ω)	(Ω)	(uA)	(V)
BZX884B27	A1	26.46	27	27.54	2	295	75	0.05	18.9
BZX884B30	A2	29.4	30	30.6	2	295	75	0.05	21
BZX884B33	A3	32.34	33	33.66	2	320	75	0.05	23.1
BZX884B36	A4	35.28	36	36.72	2	345	85	0.05	25.2
BZX884B39	A5	38.22	39	39.78	2	345	125	0.05	27.3
BZX884B43	A6	42.14	43	43.86	2	370	145	0.05	30.1
BZX884B47	A7	45.83	47	48.17	2	370	165	0.05	32.9
BZX884B51	A8	49.73	51	52.27	2	395	175	0.05	35.7
BZX884B56	A9	54.6	56	57.4	2	420	195	0.05	39.2
BZX884B62	AA	60.45	62	63.55	2	445	210	0.05	43.4
BZX884B68	AB	66.3	68	69.7	2	470	235	0.05	47.6
BZX884B68	AB	73.13	75	76.87	2	495	250	0.05	52.5

RATING AND CHARACTERISTIC CURVES

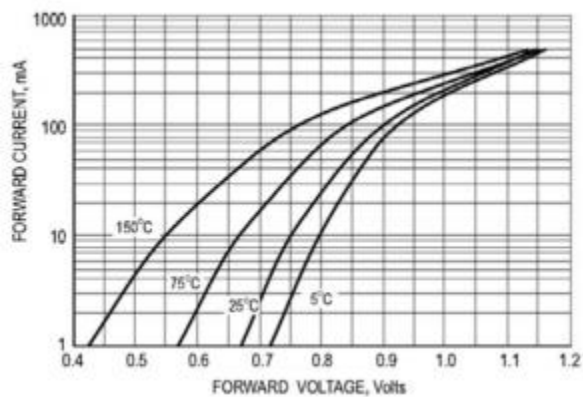


Figure 1 Typical forward characteristics

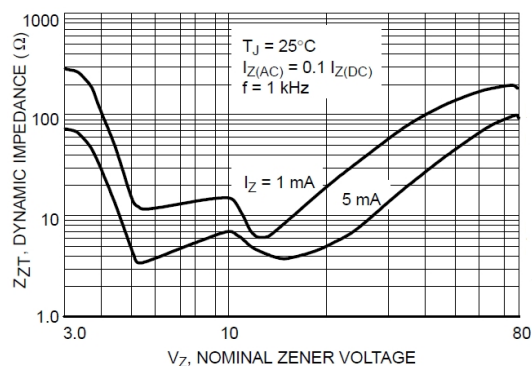


Figure 2 Reverse voltage and impedance characteristic curve

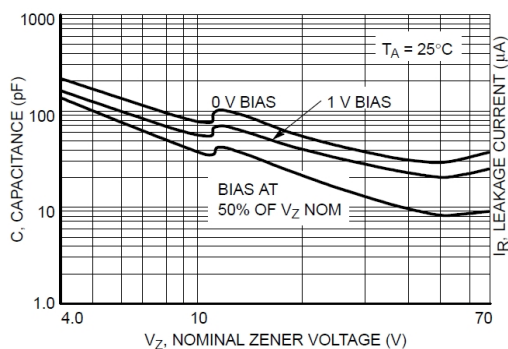
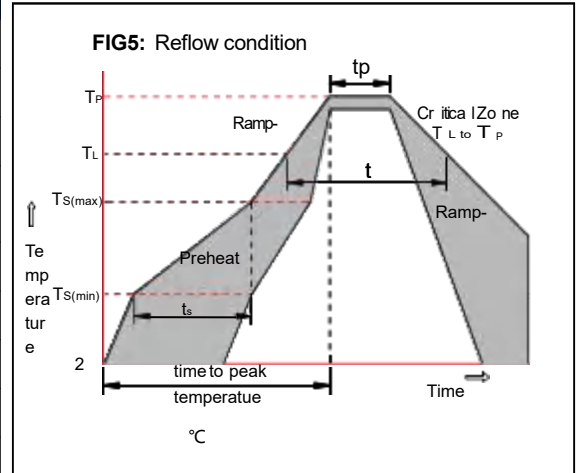


Figure 3 Typical capacitance characteristic curve

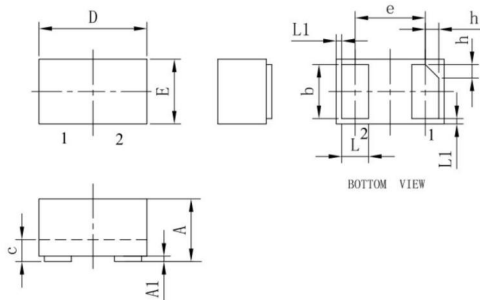
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
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 (T_P)		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp (t_P)		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260 °C



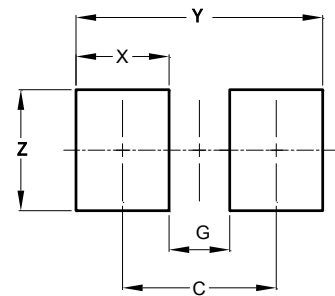
Package Dimensions & Suggested Pad Layout

DFN1006-2L



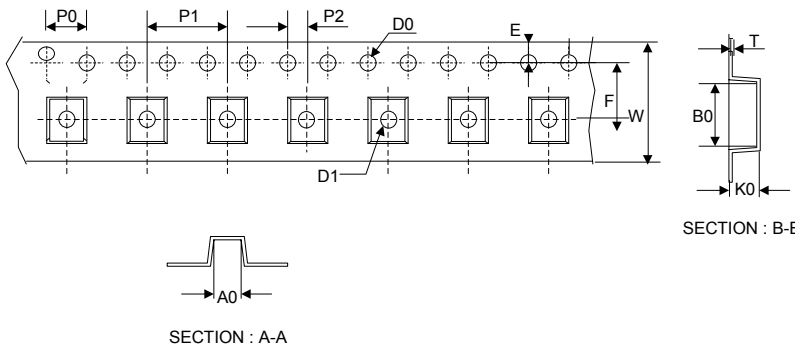
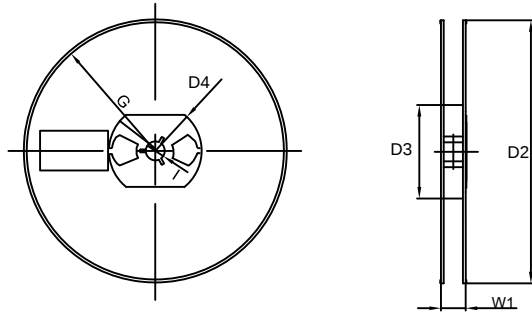
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	Millimeters			Inches		
	Min. (mm)	Typ. (mm)	Max. (mm)	Min. (mm)	Typ. (mm)	Max. (mm)
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.59BSC			0.026BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.25	0.30	0.35	0.010	0.012	0.013
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007



Dimensions	Value (in mm)
C	0.70
G	0.30
X	0.40
Y	1.10
Z	0.65

Tape & reel specification

Tape		Symbol	Dimension (mm)
 SECTION : A-A SECTION : B-B		P0	4.00±0.20
		P1	2.00±0.20
		P2	1.55±0.20
		D0	1.55±0.20
		D1	0.40±0.20
		E	1.55±0.25
		F	3.60±0.20
		W	8.00±0.20
		A0	1.00±0.20
		B0	1.40±0.20
		K0	0.75±0.20
		T	0.20±0.20
7" Reel		D2	177.0±5.0
		D3	55Min.
		D4	R24.6±2.0
		G	R82.0±2.0
		I	13.0±2.0
		W1	10.20±3.0
		Quantity: 3000PCS	