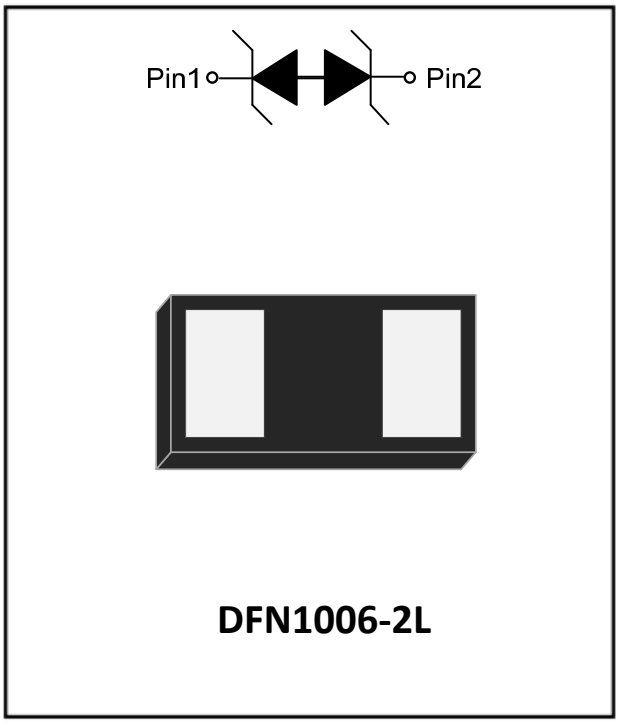
1- Line, Bi-directional, Ultra-low Capacitance, ESD protection diode



Features

- Transient protection for each line according to IEC61000-4-2(ESD): ±15kV contact, ±15kV air IEC61000-4-5:2A(tp=8/20μs)
- Ultra Low leakage current
- Ultra low clamping voltage
- Ultra low capacitance
- RoHS Compliant
- Part no. with suffix “Q” means AEC-Q101 qualified

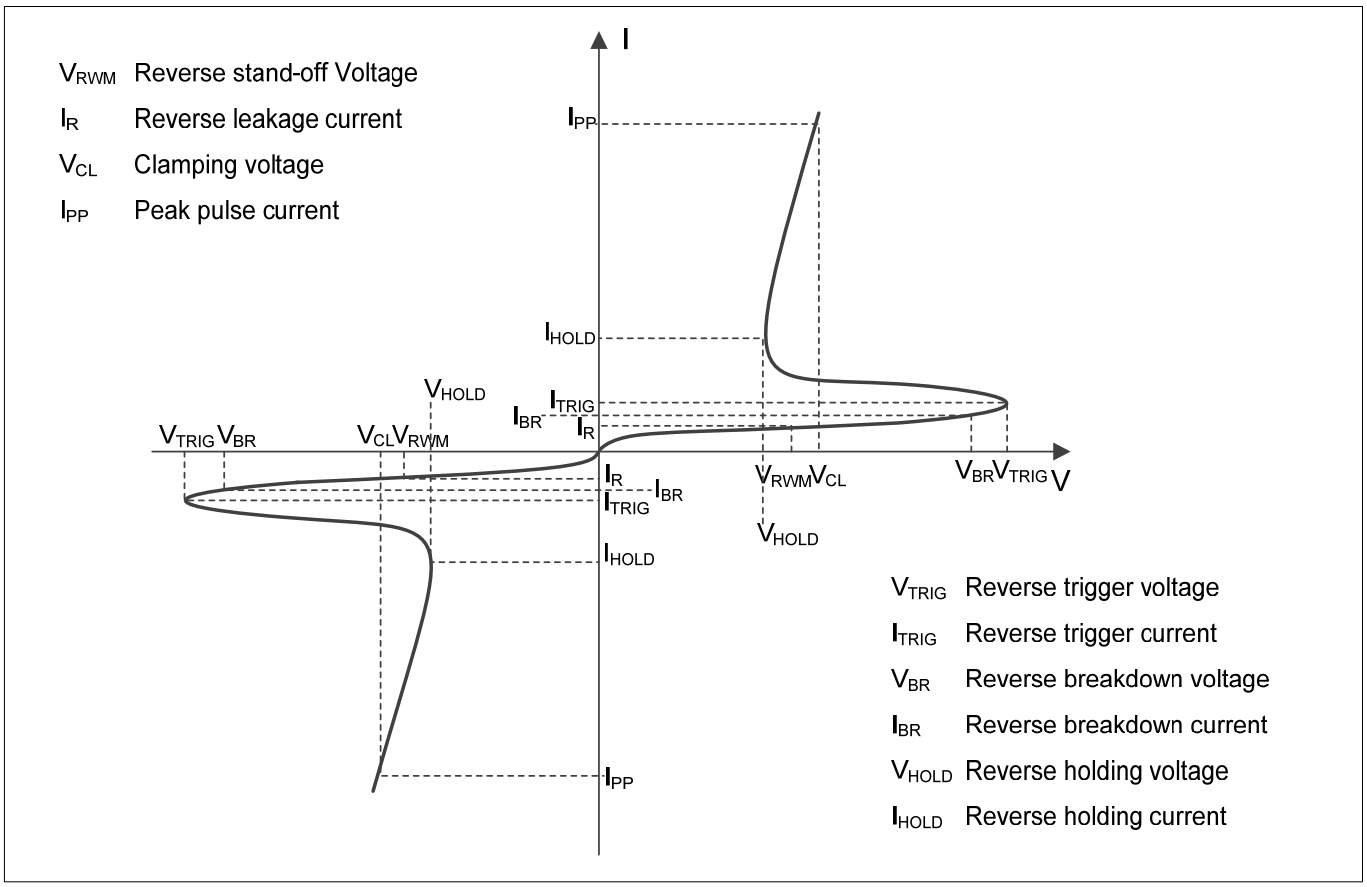
Applications

- Automotive applications

Mechanical Data

- Package: DFN1006-2L
- Lead Finish: Matte Tin
- Case Material: “Green” Molding Compound
- Moisture Sensitivity: Level 1 per J-STD-020

■Definitions of electrical characteristics



■Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power (t_p = 8/20μs)	P_{pk}	16	W
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±15	KV
ESD according to IEC61000-4-2 contact discharge		±15	
Junction temperature	T_J	-55~150	℃
Storage temperature	T_{STG}	-55~150	℃

Notes:

CAUTION: Stresses above those listed in “Absolute Maximum Ratings” may cause permanent damage to the component. This is a stress only rating and operation of the component at these or any other conditions above those indicated in the operational sections of this specification is not implied.

■Electrical Characteristics（T_J=25℃）

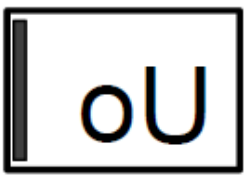
PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Standoff Voltage	V_{RWM}	V				24
Reverse breakdown voltage	V_{BR}	V	I_{BR} = 1mA	25	30.5	32
Reverse leakage current	I_R	nA	V_{RWM} = 24V		＜1	50
Clamping voltage [1]	V_C	V	I_{PP} = 1A, t_p = 8/20μs		5	7
			I_{PP} = 2A, t_p = 8/20μs		5.7	8
Dynamic resistance [2]	R_{DYN}	Ω			0.33	
Peak Pulse Current	I_{PP}	A	t_p = 8/20μs			2
Junction capacitance	C_J	pF	V_R = 0V, f = 1MHz		0.52	0.6

Notes:
(1). Non-repetitive current pulse, according to IEC61000-4-5.
(2). TLP parameter: Z0 = 50Ω, tp = 100ns, tr = 2ns, averaging window from 60ns to 80ns. RDYN is calculated from 4A to 16A

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ESDSLC24VLBQ	F1	Approximate 0.9	10K	100K	400K	Tape&Reel

■ Marking Information



Note:
1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black

■ **Characteristics** (Typical)

Fig.1: 8/20μs Pulse Waveform

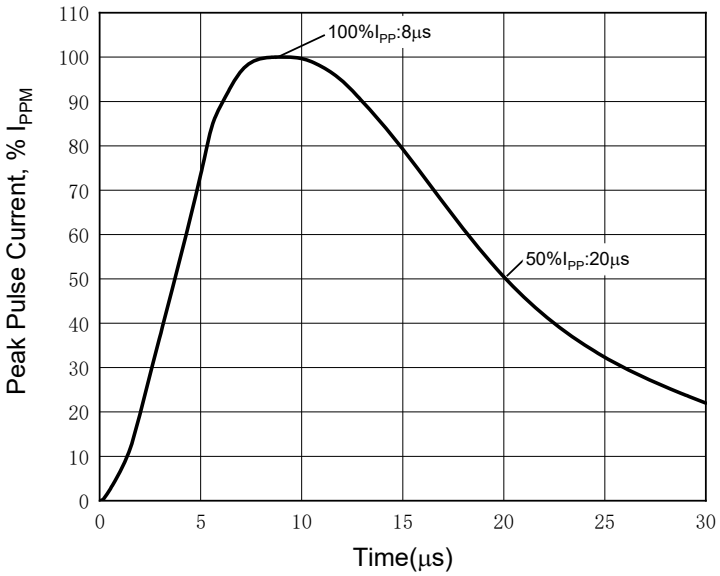


Fig.2:Peak Pulse Current vs Clamping Voltage

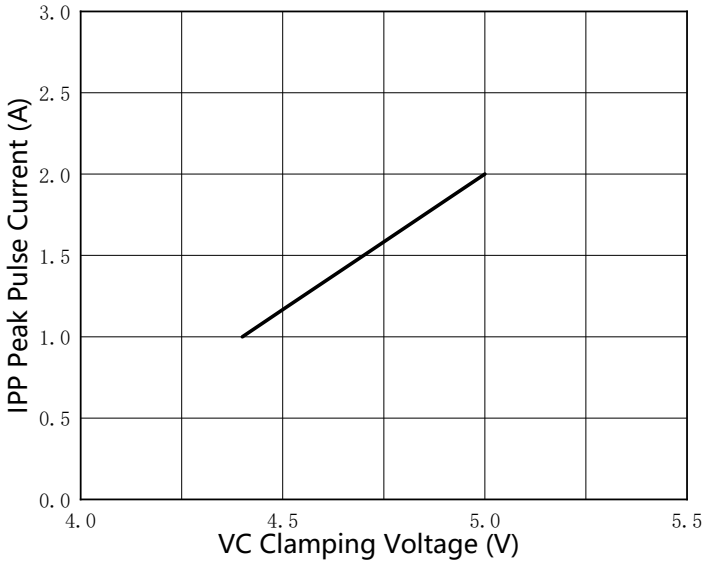


Fig.3: Capacitance vs. Bias

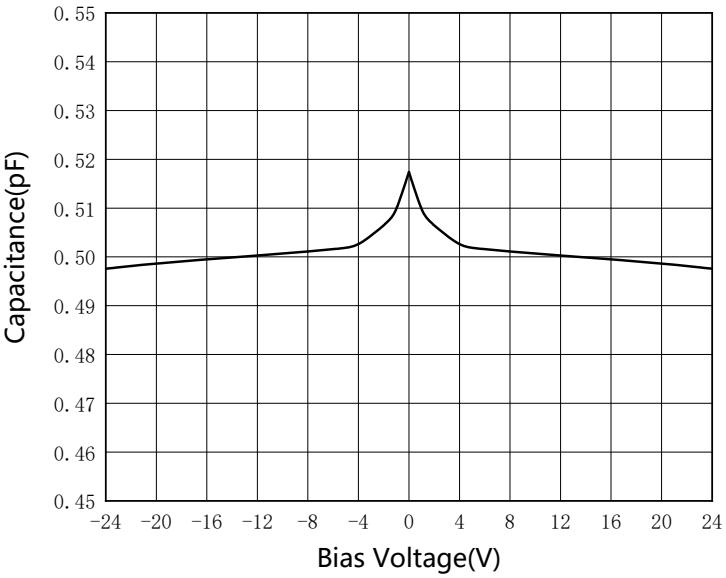
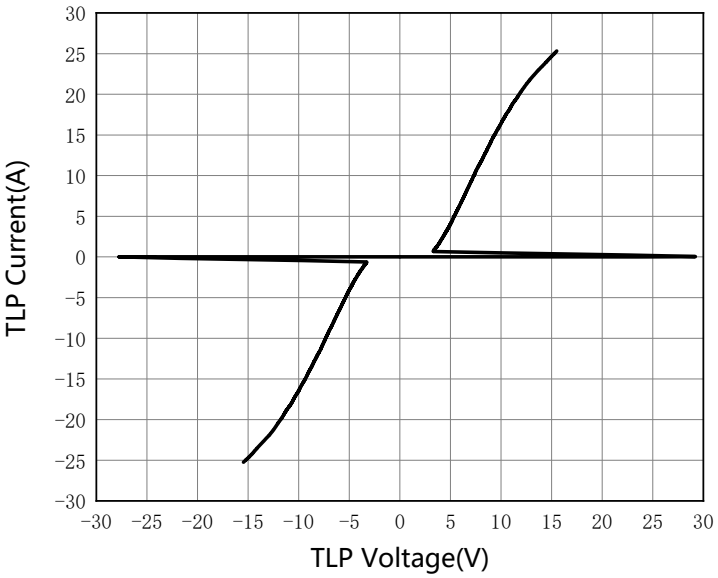
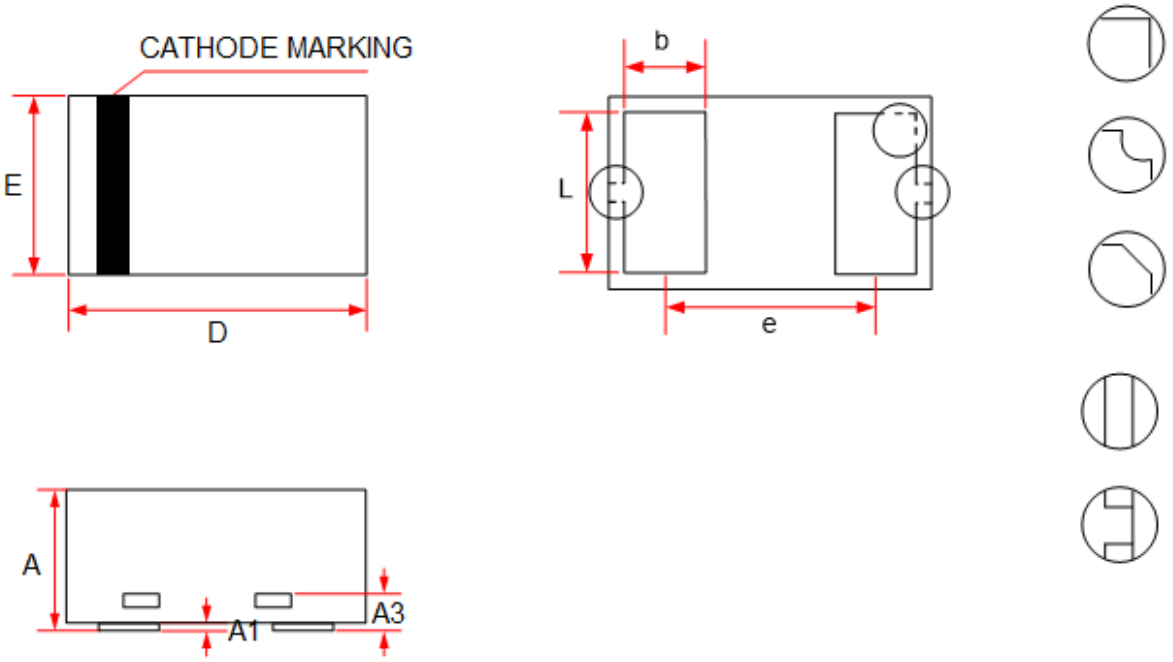


Fig.4: Transmission Line Pulsing(TLP)Plot



■ Outline Dimensions



Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.340	0.450	0.530
A1	0.000	0.020	0.050
A3	0.125 Ref.		
D	0.950	1.000	1.080
E	0.550	0.600	0.680
b	0.200	0.250	0.300
L	0.450	0.500	0.550
e	0.650 BSC		

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