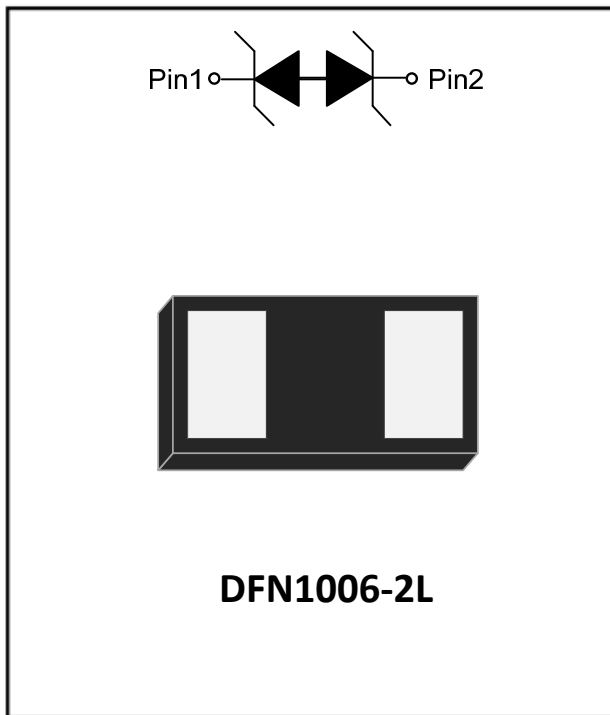


1- Line, Bi-directional, low Capacitance, ESD protection diode



Features

- Transient protection for each line according to IEC61000-4-2(ESD): $\pm 13\text{kV}$ contact, $\pm 18\text{kV}$ air IEC61000-4-5:10A($t_p=8/20\mu\text{s}$)
- Ultra Low leakage current
- Ultra low clamping voltage
- Low capacitance
- RoHS Compliant
- Part no. with suffix "Q" means AEC-Q101 qualified

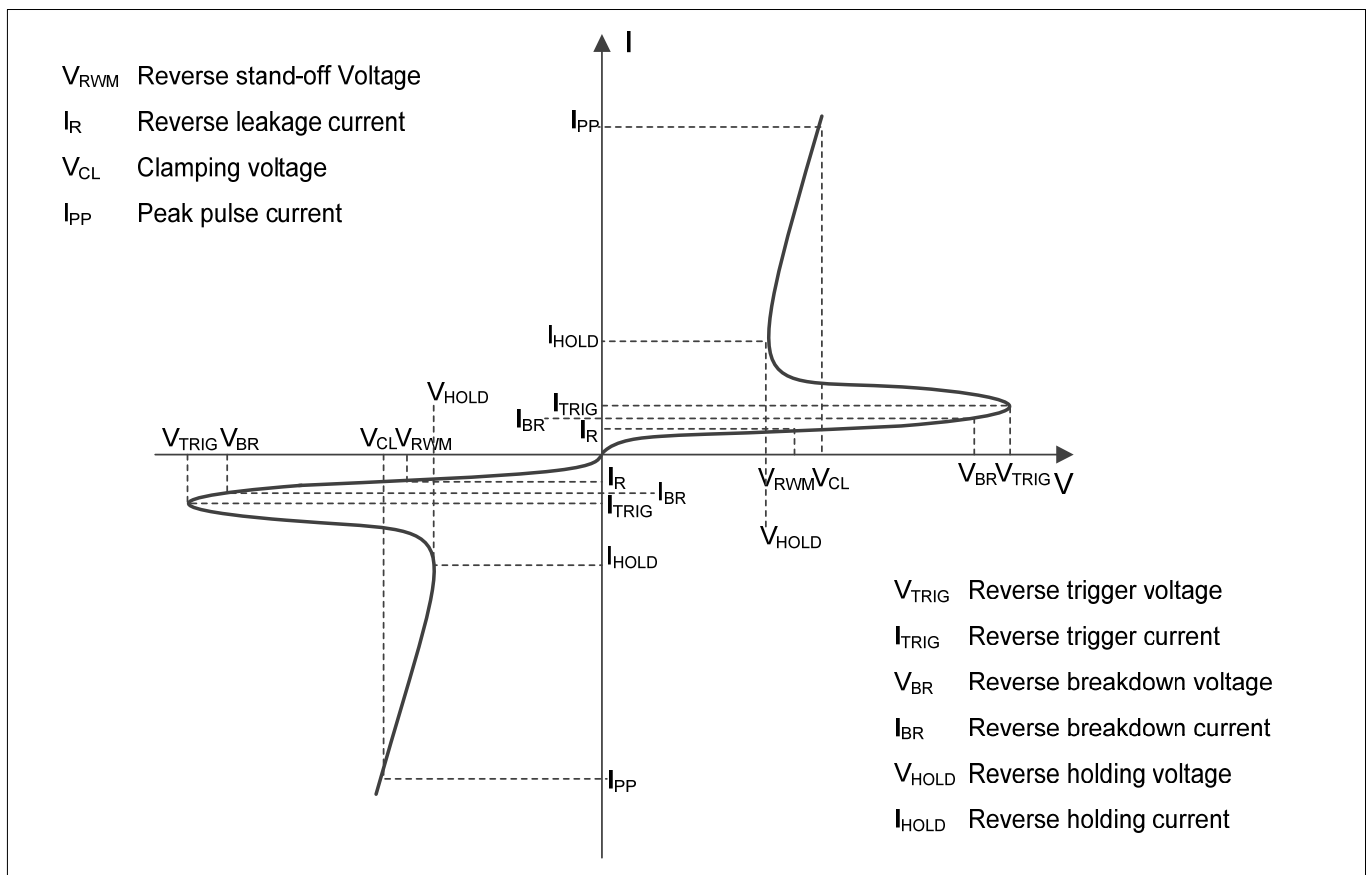
Applications

- Automotive applications

Mechanical Data

- Package: DFN1006-2L
- Case Material: "Green" Molding Compound
- Moisture Sensitivity: Level 1 per J-STD-020

■ Definitions of electrical characteristics





SESDSLC3V3LBAQ

■ Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power ($t_p=8/20\mu s$)	P_{pk}	78	W
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 18	KV
ESD according to IEC61000-4-2 contact discharge		± 13	
Junction temperature	T_J	-55~150	°C
Storage temperature	T_{STG}	-55~150	°C

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 ($T_J=25^\circ C$)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Standoff Voltage	V_{RWM}	V				3.3
Reverse breakdown voltage	V_{BR}	V	$I_{BR} = 1mA$	8		
Reverse leakage current	I_R	nA	$V_{RWM} = 3.3V$			50
Clamping voltage ¹⁾	V_C	V	$I_{PP} = 3.5A, t_p = 8/20\mu s$			5
			$I_{PP}=10A, t_p = 8/20\mu s$			7.8
Dynamic resistance ²⁾	R_{DYN}	Ω			0.27	
Peak Pulse Current	I_{PP}	A	$t_p = 8/20\mu s$	10		
Junction capacitance	C_J	pF	$V_R=0V, f=1MHz$			0.7

Notes:

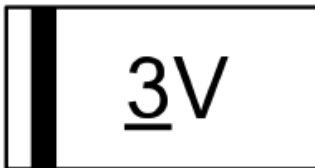
(1). Non-repetitive current pulse, according to IEC61000-4-5.

(2). TLP parameter: $Z_0 = 50\Omega$, $t_p = 100ns$, $t_r = 2ns$, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SESDSLC3V3LBAQ	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: 8/20 μ s Pulse Waveform

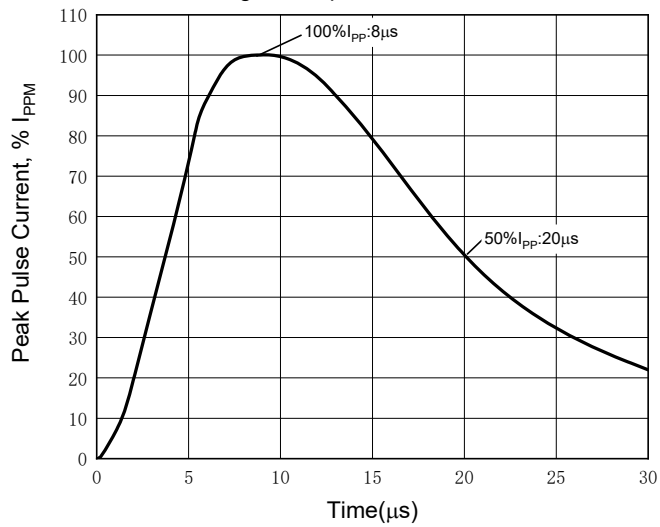


Fig2: Peak Pulse Current vs Clamping Voltage

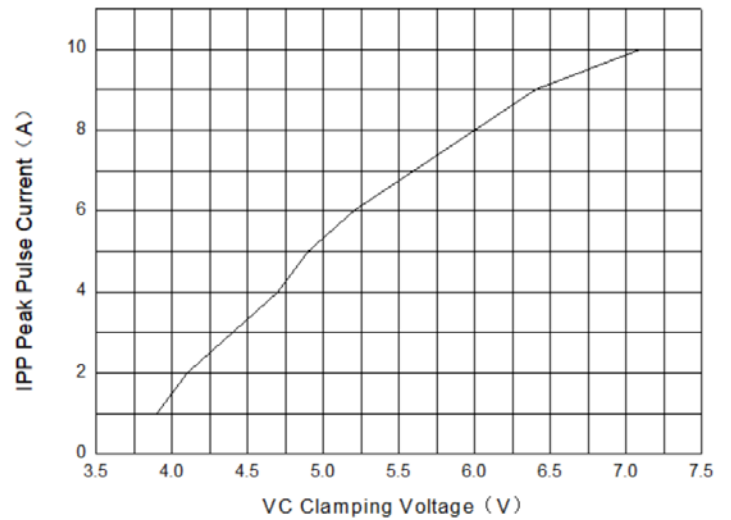


Fig3: Capacitance VS Bias

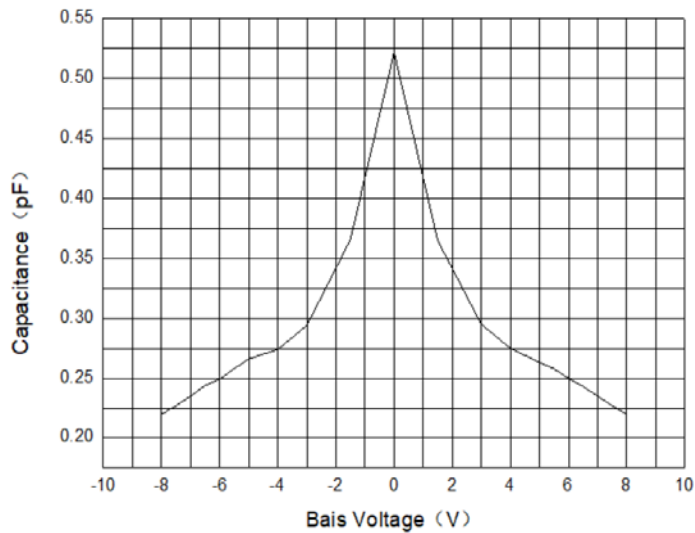
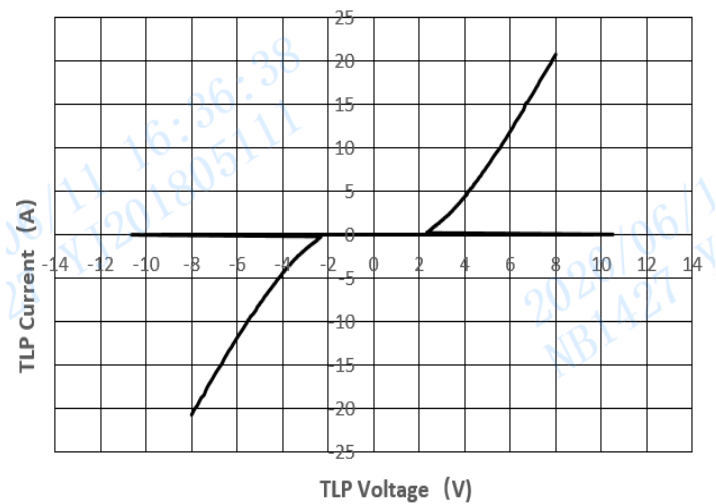


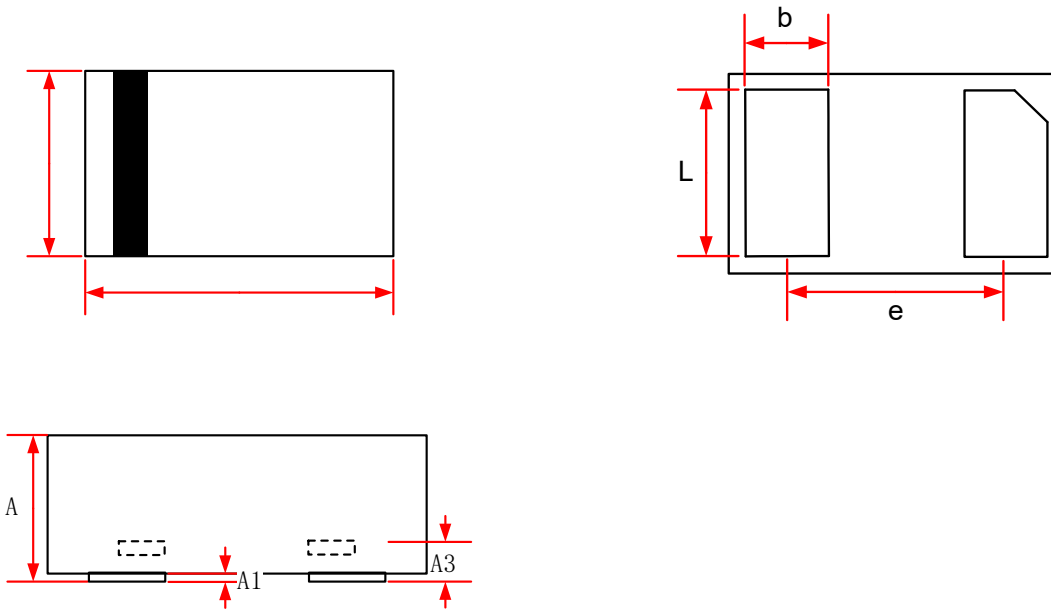
Fig 4: Transmission Line Pulsing (TLP) Plot





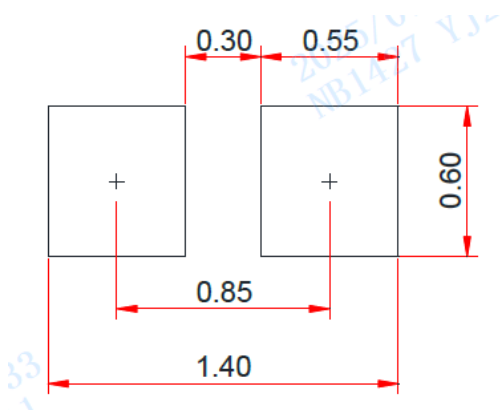
SESDSLC3V3LBAQ

■ Outline Dimensions



Symbol	Dimensions in Millimeters		
	Min.	Typ.	Max.
A	0.400	0.450	0.500
A1	0.000	0.020	0.050
A3	0.125 Ref.		
D	0.950	1.000	1.050
E	0.550	0.600	0.650
b	0.200	0.250	0.300
L	0.450	0.500	0.550
e	0.650 BSC		

■ Recommended PCB Layout



Notes:

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.

Unit: mm



Disclaimer

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