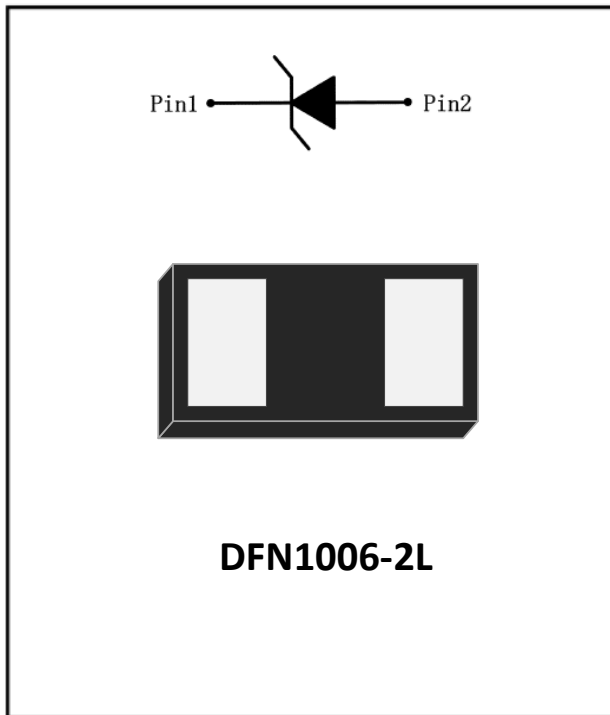


1- Line, Uni-directional, low Capacitance, ESD protection diode



Features

- IEC61000-4-2(ESD): $\pm 12\text{kV}$ contact, $\pm 15\text{kV}$ air
- IEC61000-4-5 (surge): $5\text{A}(t_p=8/20\mu\text{s})$
- Ultra Low leakage current
- Ultra low clamping voltage
- Low capacitance
- RoHS Compliant
- Part no. with suffix "Q" means AEC-Q101 qualified

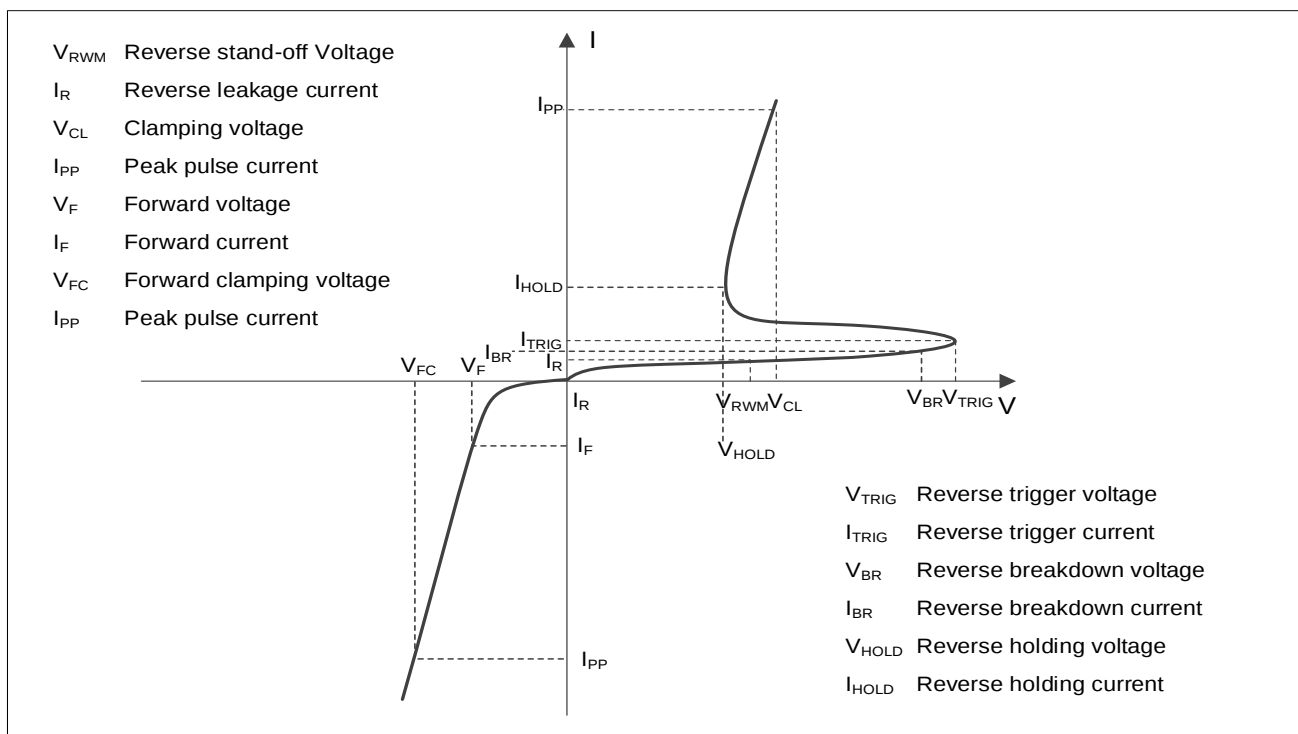
Applications

- Automotive applications

Mechanical Data

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

■ Definitions of electrical characteristics





SESDSLC5V0LQ

■ Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power ($t_p = 8/20\mu s$)	P_{pk}	30	W
Peak Pulse Current($t_p = 8/20\mu s$)	I_{PP}	5	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 15	KV
ESD according to IEC61000-4-2 contact discharge		± 12	
Junction temperature	T_J	-55~150	$^{\circ}C$
Storage temperature	T_{STG}	-55~150	$^{\circ}C$

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		-	-	5
Reverse breakdown voltage	V_{BR}	V	$I_{BR} = 1mA$	5.5	-	-
Reverse leakage current	I_R	nA	$V_{RWM} = 5V$	-	-	100
Forward voltage	V_F	V	$I_F = 10mA$	-	-	1
Clamping voltage ¹⁾	V_C	V	$I_{PP}=16A, t_p=100ns$	-	7.7	-
Dynamic resistance ¹⁾	R_{DYN}	Ω		-	0.37	-
Clamping voltage ²⁾	V_C	V	$I_{PP}=1A, t_p=8/20\mu s$	-	3	5
			$I_{PP}=5A, t_p=8/20\mu s$	-	4.1	6
Junction capacitance	C_J	pF	$V_R = 0V, f = 1MHz$	-	0.55	0.7

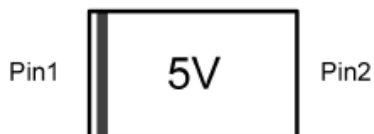
Notes:

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

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SESDSLC5V0LQ	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

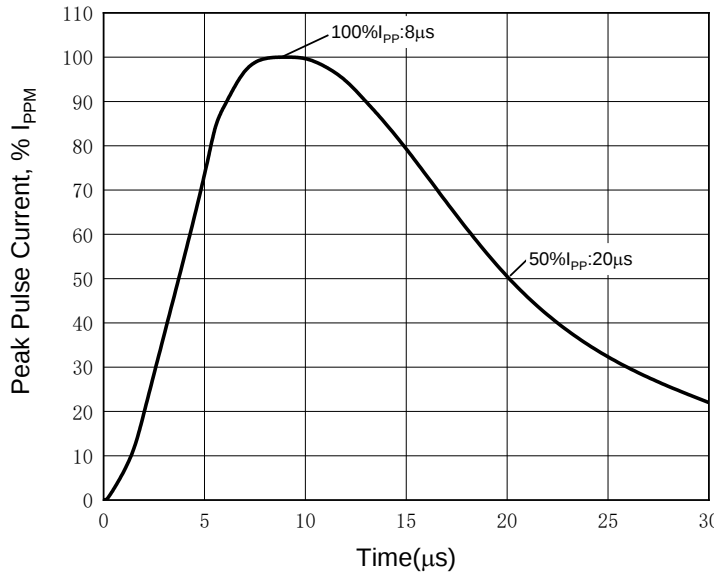


Fig2: Clamping voltage VS Peak Pulse Current

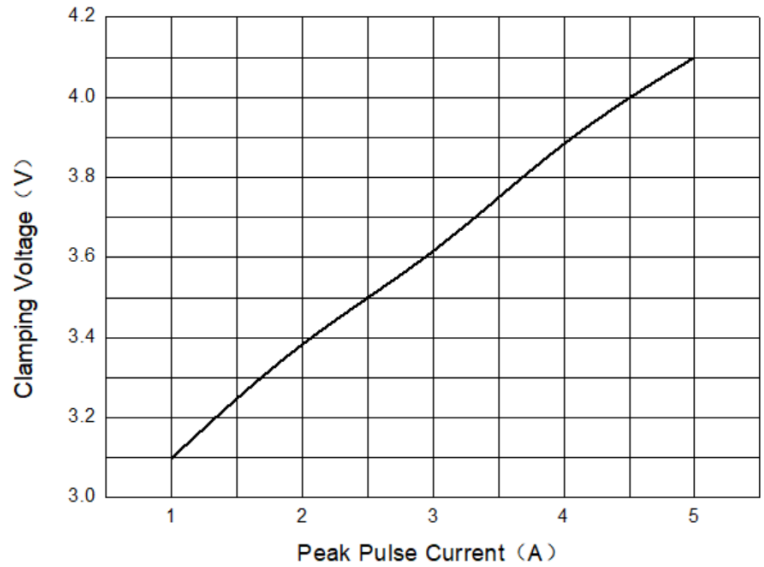


Fig 3: Capacitance VS Bias

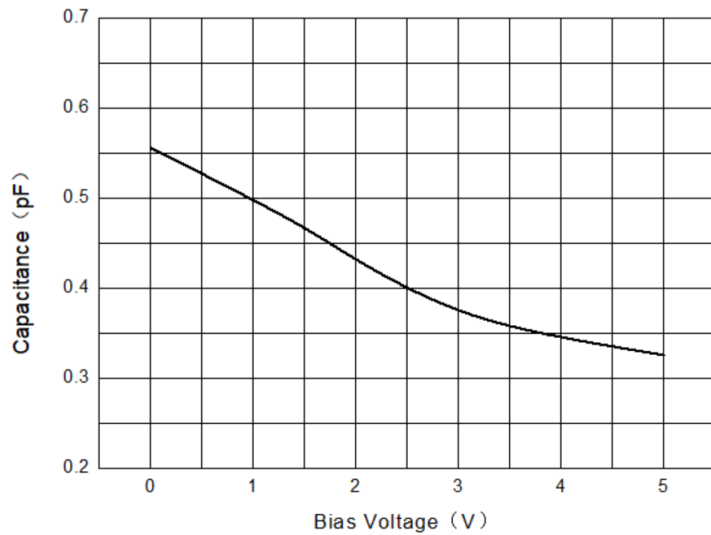
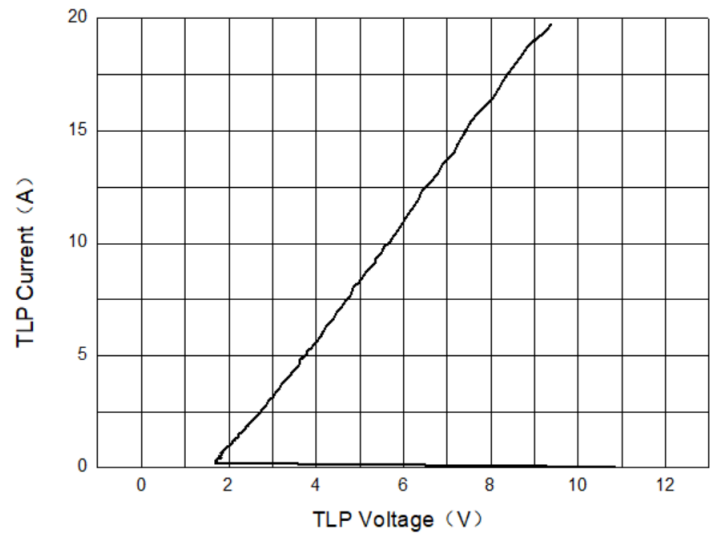
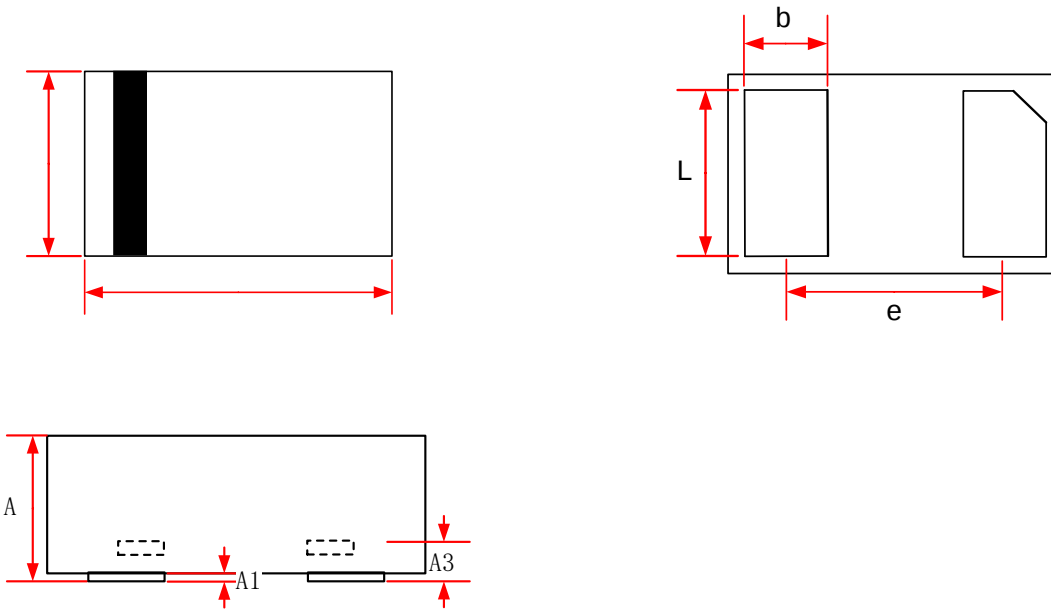


Fig 4: Transmission Line Pulsing (TLP) Plot



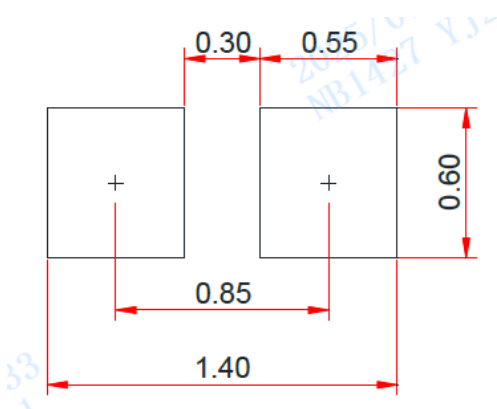


■ Outline Dimensions



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



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