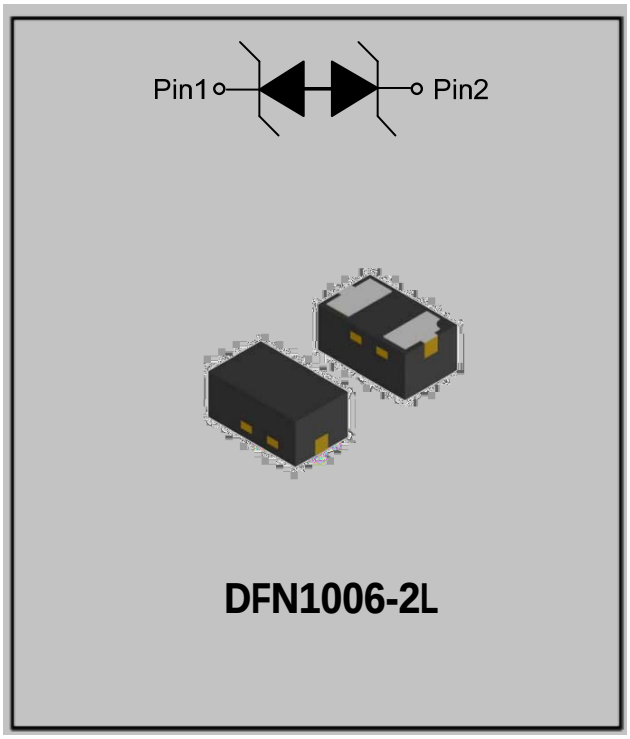
1- Line, Bi-directional, ESD protection diode



Features

- Transient protection for each line according to
  IEC61000-4-2(ESD): ±30kV contact, ±30kV air
  IEC61000-4-5:3.5A(tp=8/20μs)
- Low leakage current
- Ultra low clamping voltage
- RoHS Compliant
- Part no. with suffix “Q” means AEC-Q101 qualified

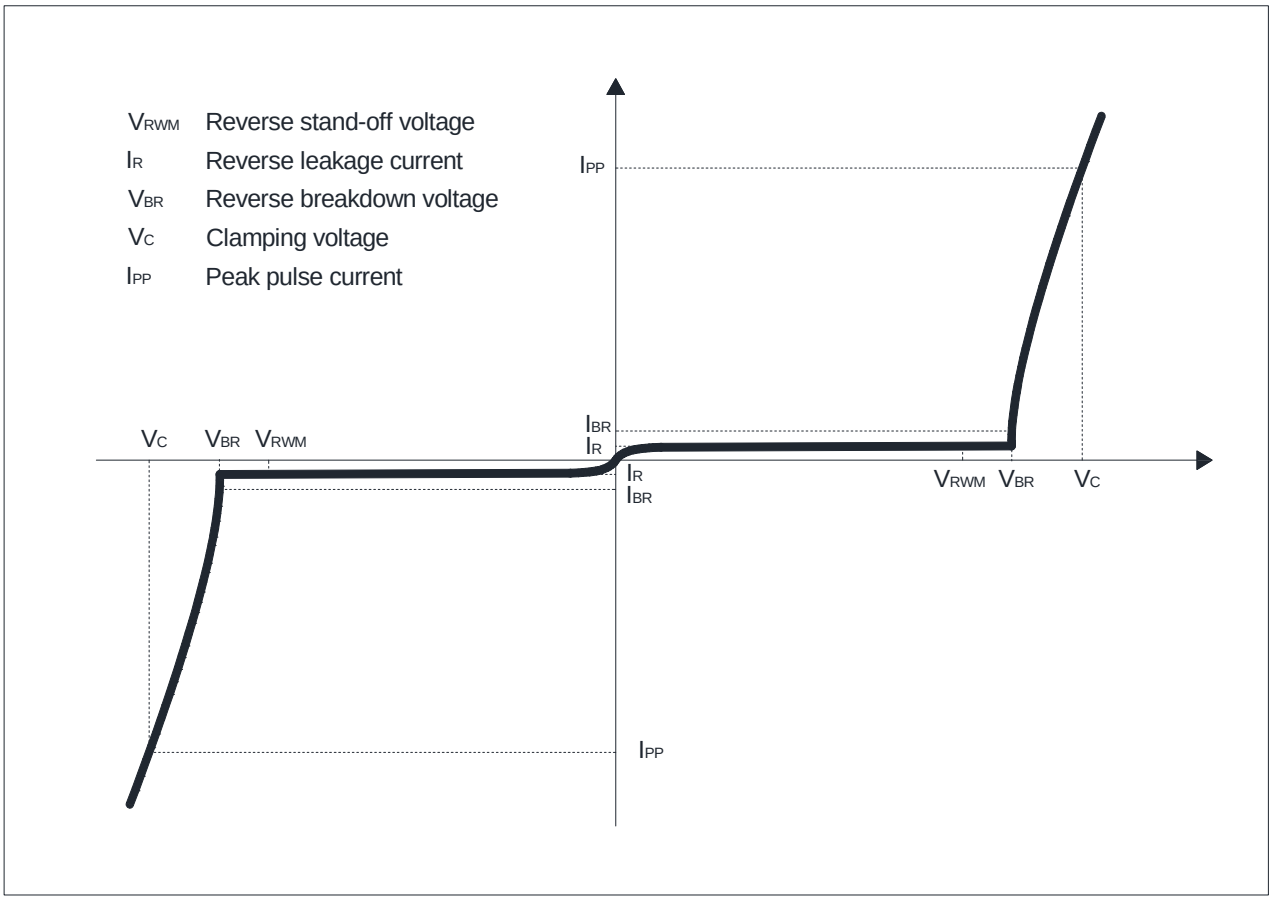
Applications

- 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}	150	W
ESD according to IEC61000-4-2 air discharge	V_{ESD}	±30	KV
ESD according to IEC61000-4-2 contact discharge		±30	
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 ÄT$_J$=25 Å

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Standoff Voltage	V_{RWM}	V				24
Reverse breakdown voltage	V_{BR}	V	I_{BR} = 1mA	25.5		29.5
Reverse leakage current	I_R	uA	V_{RWM} = 24V			0.5
Clamping voltage [1)]	V_{CL}	V	I_{PP} = 1A, t_p = 8/20μs		31	35
			I_{PP} = 3.5A, t_p = 8/20μs		39	45
Peak Pulse Current	I_{PP}	A	t_p = 8/20μs			3.5
Junction capacitance	C_J	pF	V_R = 0V, f = 1MHz		8.5	

Notes:

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

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ESD24VLBQ	F1	Approximate 0.9	10K	100K	400K	Tape&Reel

■Characteristics (Typical)

Fig.1: 8/20μs Pulse Waveform

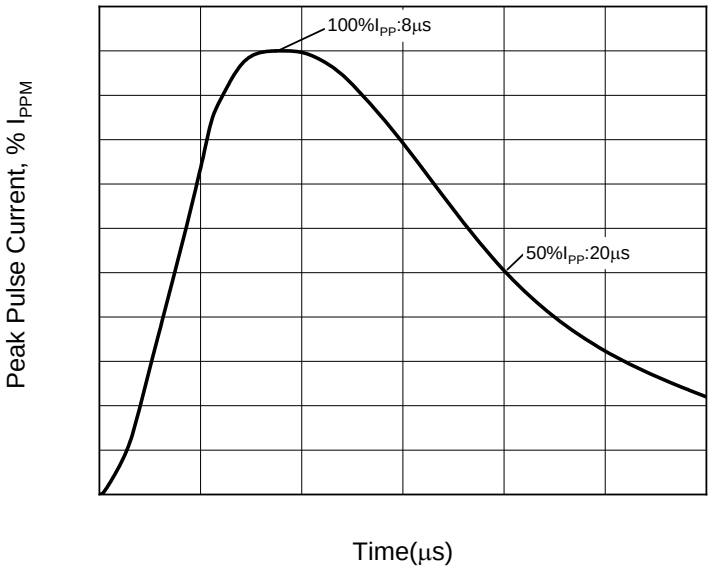


Fig.2:Peak Pulse Current vs Clamping Voltage

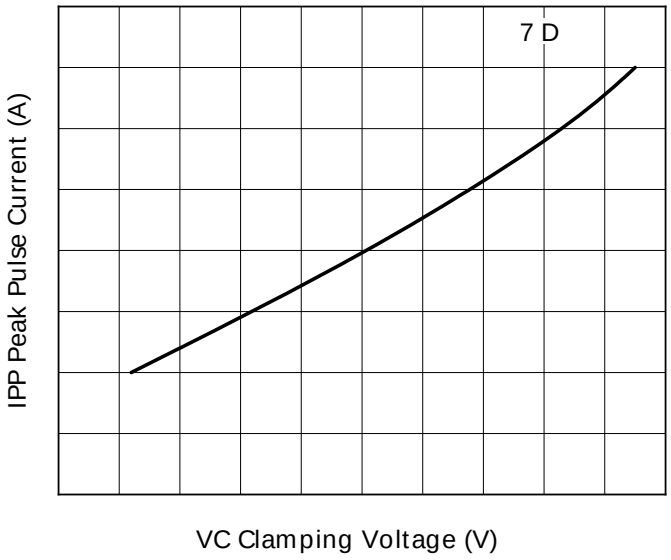


Fig.3: Power Derating Curve

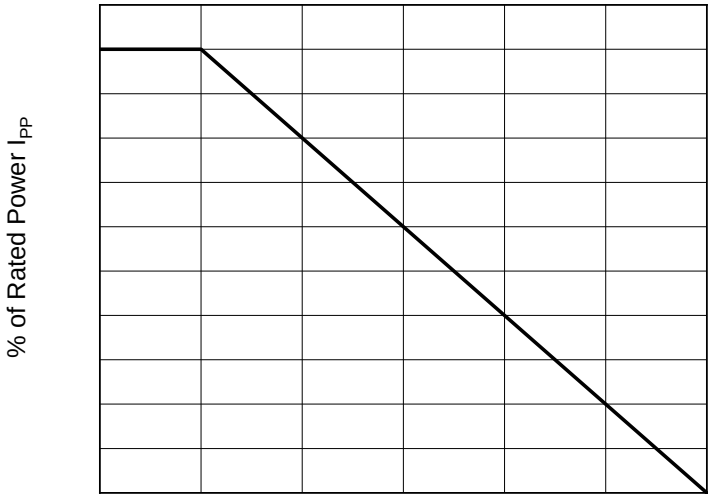
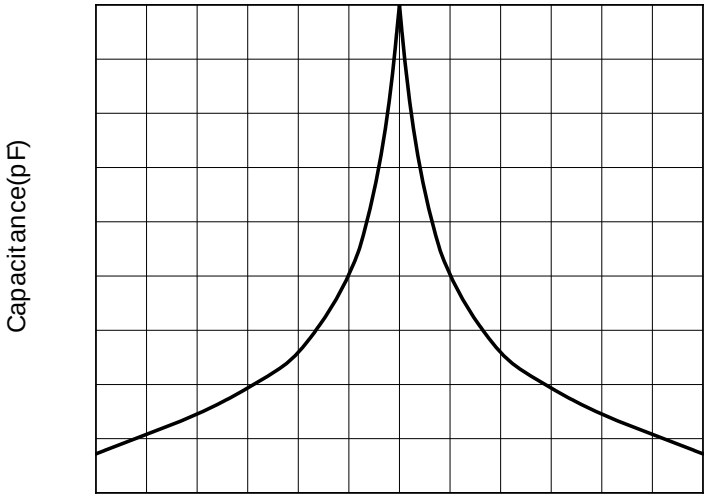
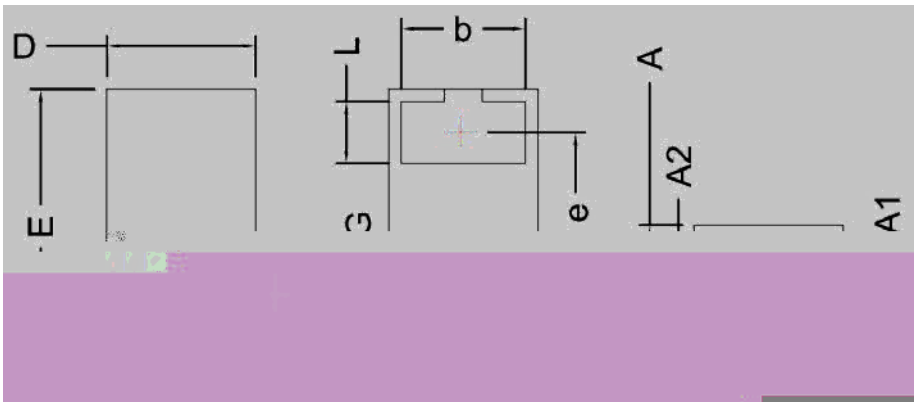


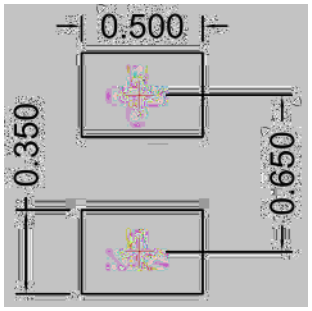
Fig.4: Capacitance vs. Bias



■Outline Dimensions

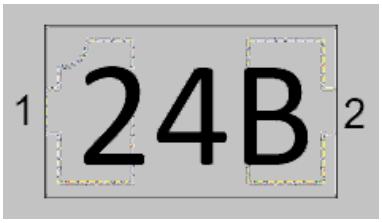


SYMBOL	MILLIMETER		
	MIN	NOM	MAX
D	0.50	0.60	0.70
E	0.90	1.00	1.10
A	0.35	0.45	0.55
A1		0.15 BSC	
A2			0.10
F	0.005		
G	0.005		
L	0.15	0.25	0.35
b	0.41	0.50	0.59
e		0.65 BSC	



Unit Ömm

■ Marking Information



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