1- Line, Uni-directional, ESD protection diode

Features

- Transient protection for each line according to IEC61000-4-2(ESD): IEC61000-4-5:8
- Low leakage current
- Ultra low clamping voltage
- RoHS Compliant
- Part no. with suffix “Q” means AEC-Q101 qualified

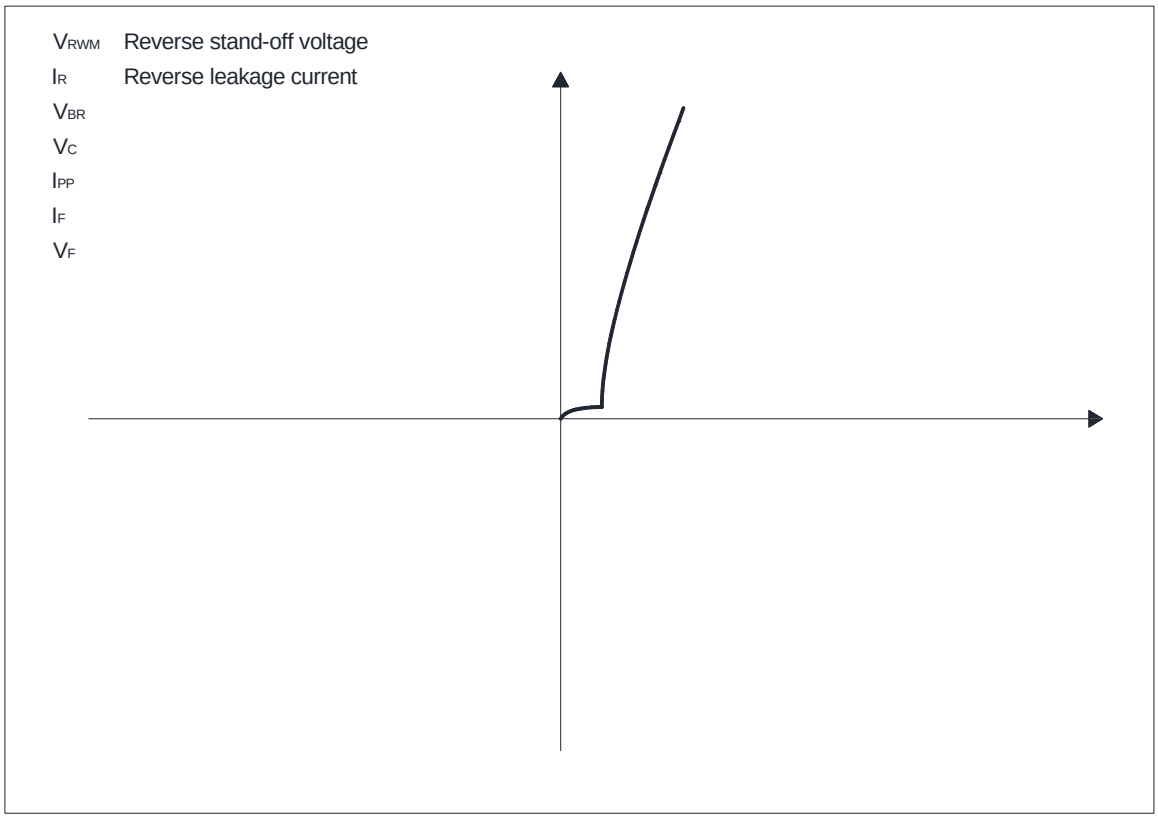
Applications

-
-
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Mechanical Data

- Package: SOD-323
- 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}	480	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 T_J=25

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Standoff Voltage	V_{RWM}	V	$I_R \leq$ 1μA			36
Reverse breakdown voltage	V_{BR}	V	I_{BR} = 1mA	38		48
Reverse leakage current	I_R	μA	V_{RWM} = 36V			1.0
Forward Voltage	V_F	V	I_F=10mA			1.1
Clamping voltage [1)]	V_C	V	I_{PP} = 1A, t_p = 8/20μs			45
			I_{PP} = 8A, t_p = 8/20μs			60
	I_{PP}	A	t_p = 8/20μs			8
Junction capacitance	C_J	pF	V_R = 0V, f = 1MHz		40	80

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
ESD36VD3AHQ	F2	Approximate 4.5	3000	30000	120000	7 reel

■ Characteristics (Typical)

Fig.1: 8/20μs Pulse Waveform

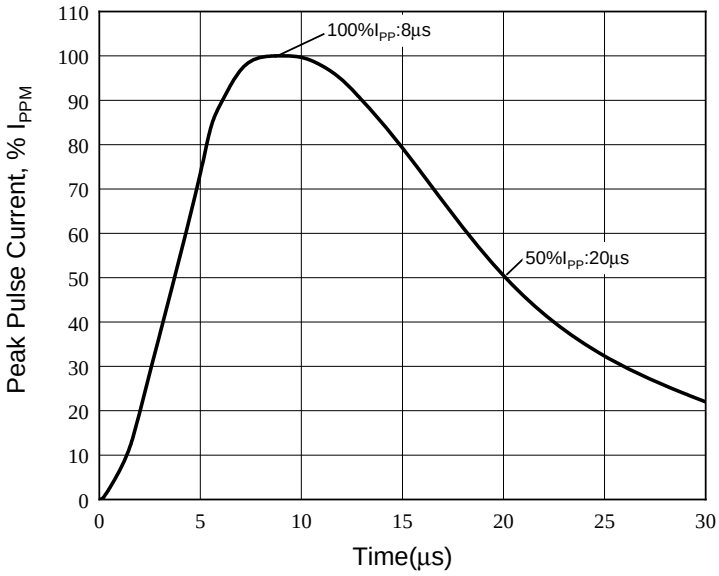


Fig.2:Peak Pulse Current vs Clamping Voltage

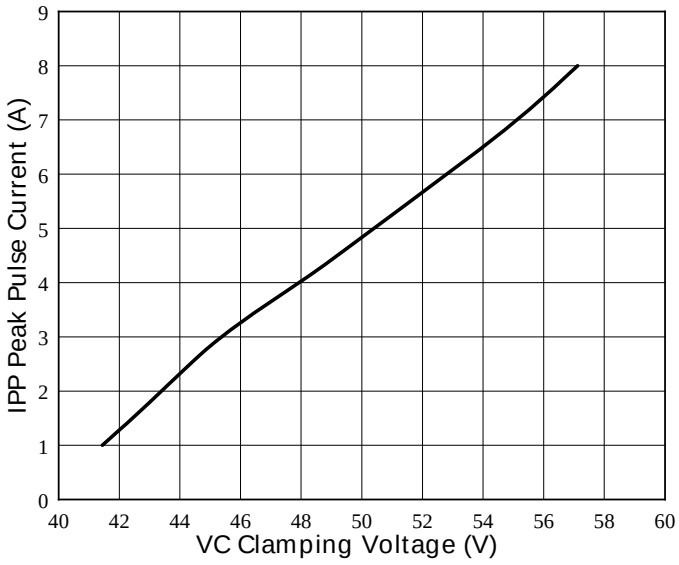


Fig.3: Power Derating Curve

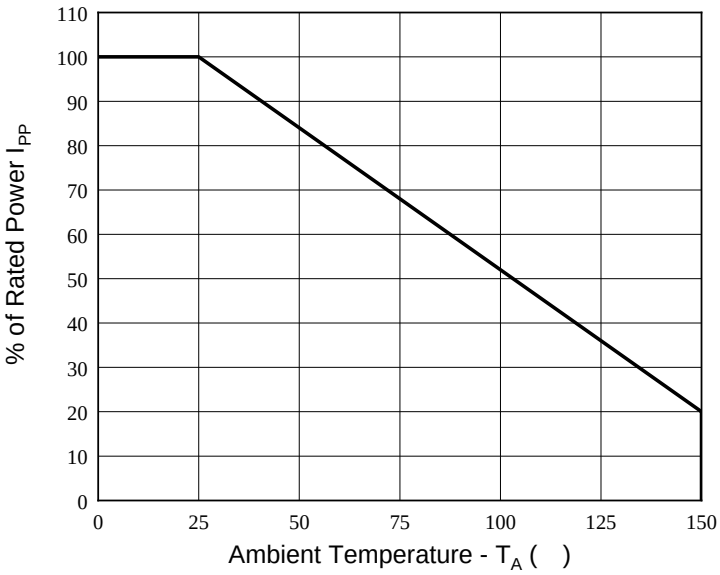
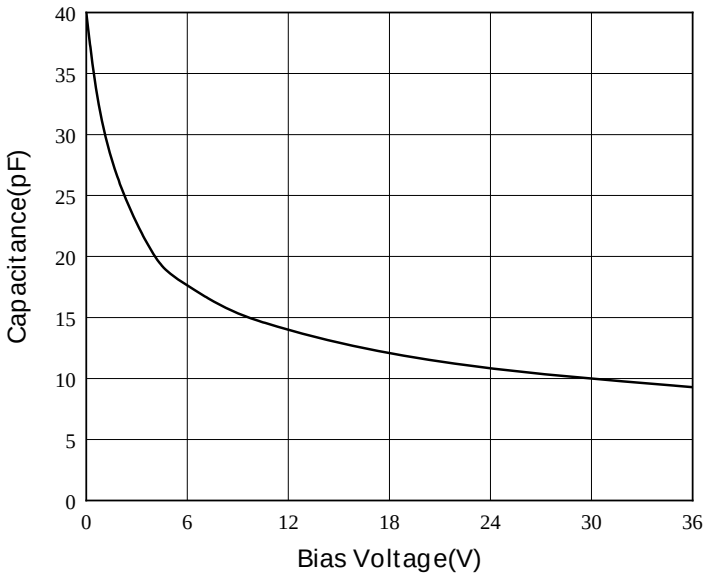
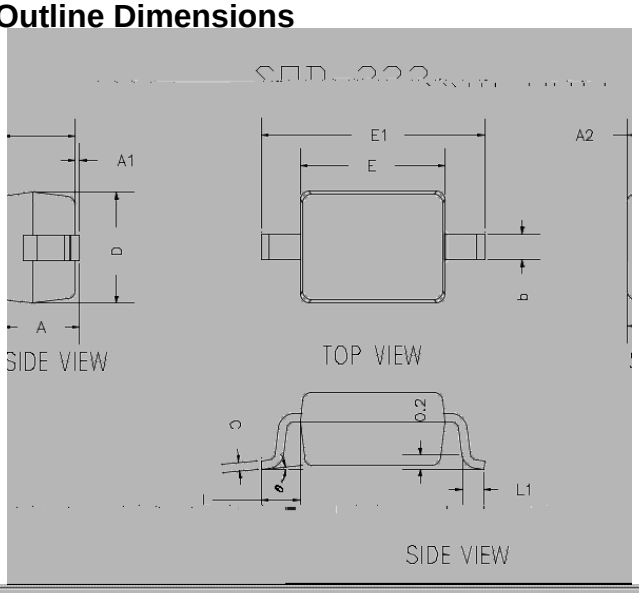
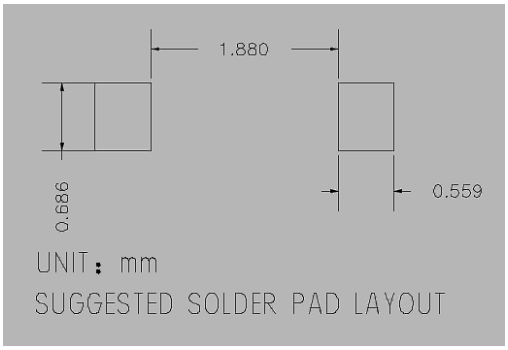


Fig.4: Capacitance vs. Bias



■ Outline Dimensions





DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
θ	0°	8°	0°	8°

■ Marking Information



Note:
1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black
4. HA% is Marking Code (%=placeholder for date code)

*Date Code vary depending upon production date.

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