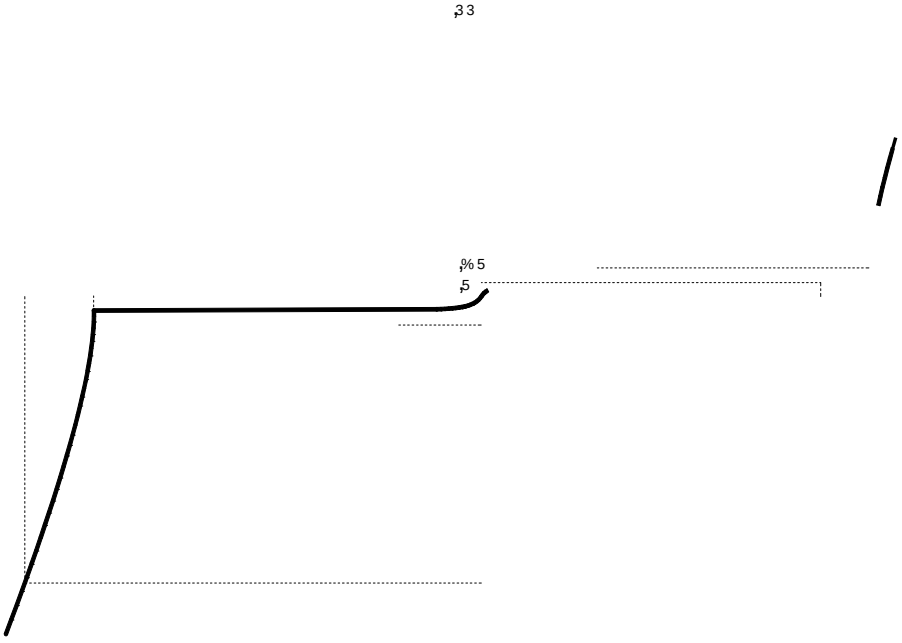
2- Line, Bi-directional, ESD protection diode

Features

- Transient protection for each line according to
  IEC61000-4-2(ESD):
  IEC61000-4-5:24
- Low leakage current
- Ultra low clamping voltage
- RoHS Compliant
- Part no. with suffix “Q” means AEC-Q101 qualified

Applications

-



■Maximum Ratings

PARAMETER	SYMBOL	LIMITS	UNIT
Peak pulse power (t_p = 8/20μs)	P_{pk}	312	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	[redacted]	Conditions	[redacted]	Typ	Max
Reverse Standoff Voltage	V_{RWM}	V	$I_R \leq 1\mu A$			5.0
Reverse breakdown voltage	V_{BR}	V	I_{BR} = 1mA	6.0		7.8
Reverse leakage current	I_R	μA	V_{RWM} = 5V			1.0
Clamping voltage [1)]	V_{CL}	V	I_{PP} = 1A, t_p = 8/20μs			10
		V	I_{PP} = 10A, t_p = 8/20μs			12
		V	I_{PP} = 24A, t_p = 8/20μs			13
Dynamic resistance [2)]	R_{DYN}	Ω	TLP, tp=100ns, I/O to Ground		0.11	
	I_{PP}	A	t_p = 8/20μs			24
Junction capacitance	C_J	pF	V_R = 0V, f = 1MHz		50	100

Notes:

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

(2). TLP parameter: Z_{0i} φ D Ð M

■ Characteristics (Typical)

Fig.1: Non-Repetitive Peak Pulse Power vs. Pulse Time

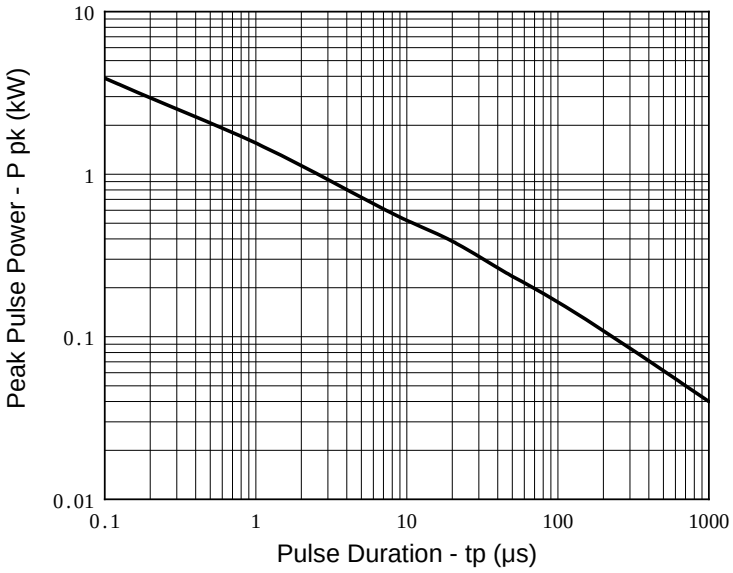


Fig.2: Capacitance vs. Bias

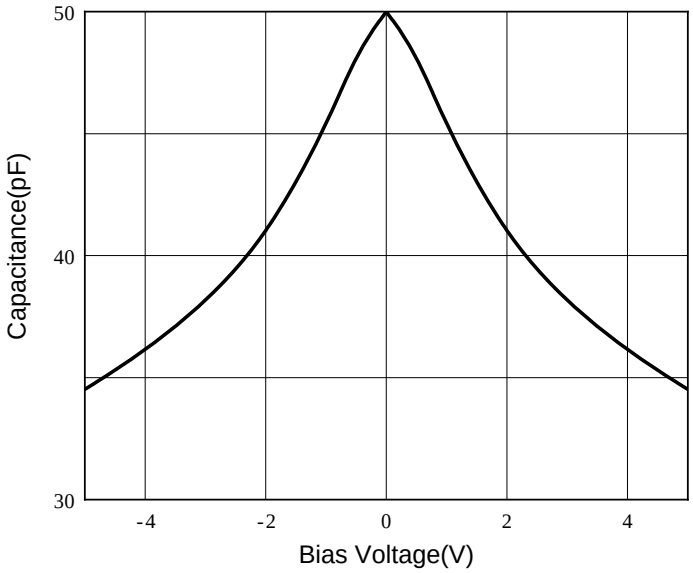


Fig.3: Power Derating Curve

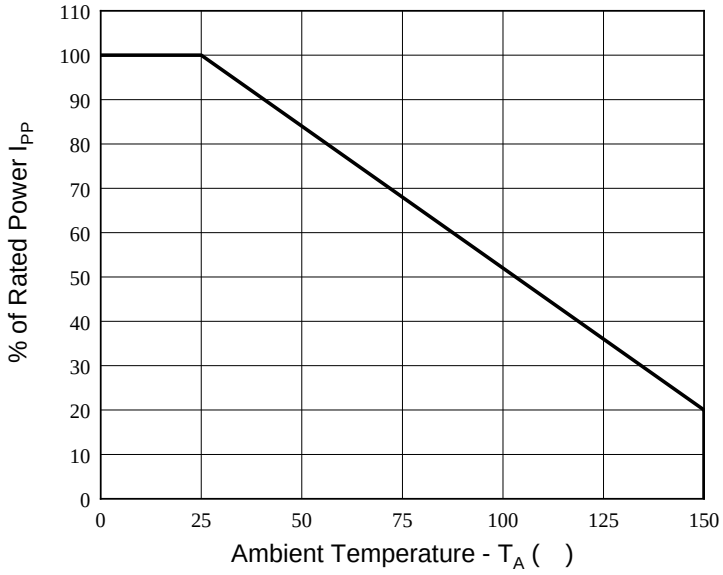
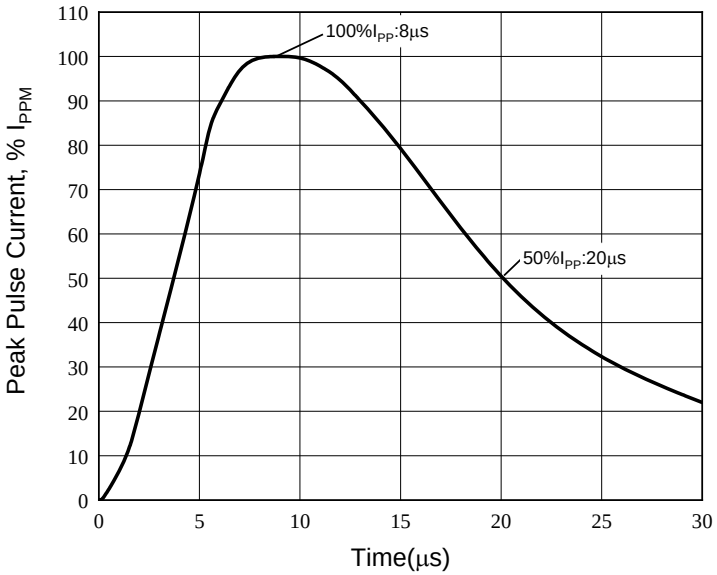
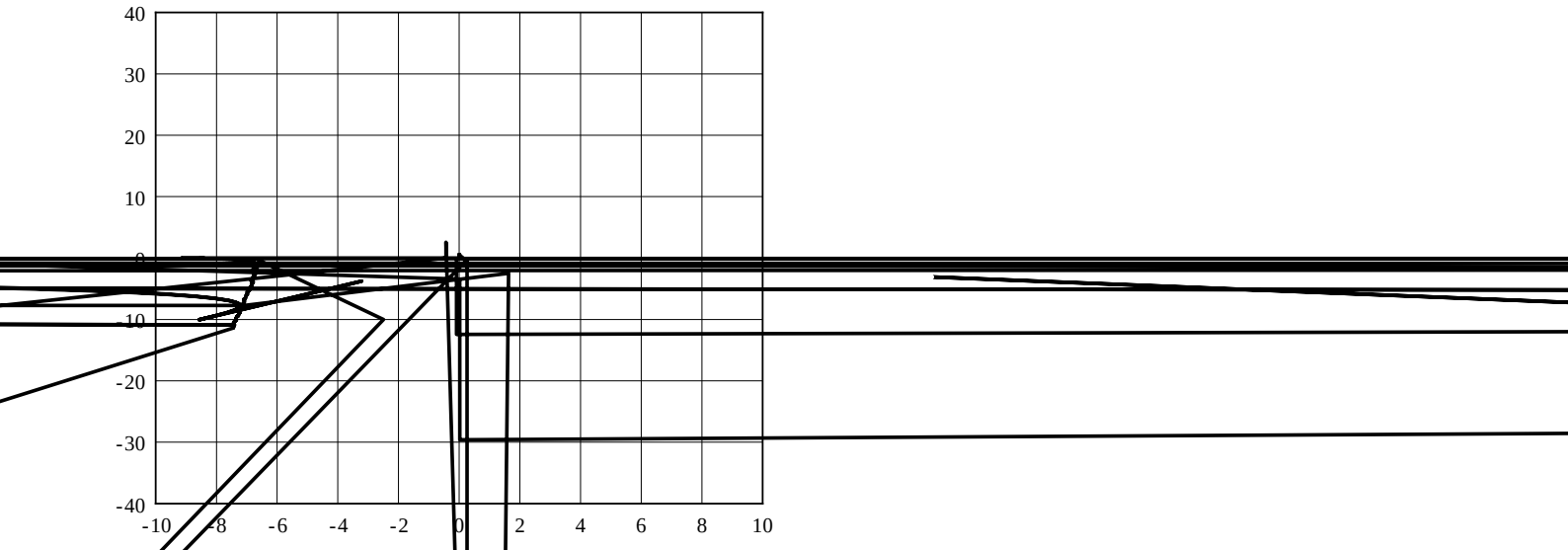
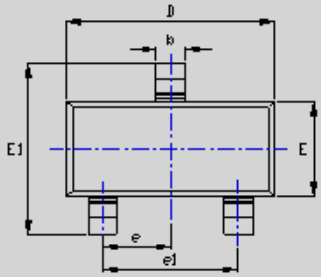


Fig.4: 8/20µs Pulse Waveform

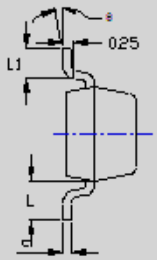




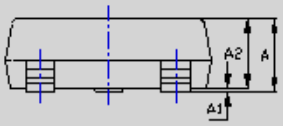
■ Outline Dimensions



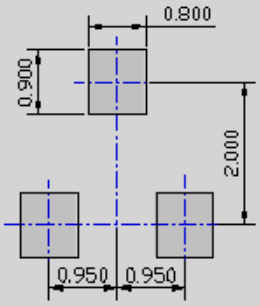
TOP VIEW



SIDE VIEW



SIDE VIEW



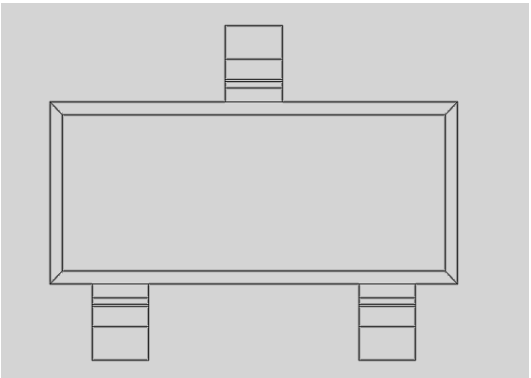
UNIT: mm

SUGGESTED SOLDER PAD LAYOUT

DIMENSIONS				
SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
θ	0°	8°	0°	8°

NOTE:
1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.
2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.
3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

■ Marking Information



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

Disclaimer

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