

1.Description

The UAD8C05L01 includes back -to-back TVS diodes fabricated in a proprietary silicon avalanche technology to provide protection for electronic equipment that may experience destructive electrostatic discharge (ESD). These robust diodes can safely absorb repetitive ESD strikes up to the maximum level specified in the IEC61000 -4-2 international standard without performance degradation.

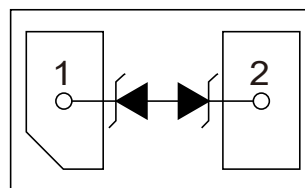
3.Features

- IEC61000-4-2 ESD 15KV Air, 8KV
- contact compliance
- SOD882 surface mount package
- Working voltage: 5V
- Low leakage current

2.Applications

- USB 3.0/USB 2.0
- MHL/MIPI/MDDI
- HDMI, Video Port, eSATA
- Set Top Boxes, Game Consoles
- Smart Phones
- External Storage
- Ultrabooks, Notebooks
- Tablets, eReaders

4.Pinning information



SOD-882



5.Absolute Maximum Rating

Parameter	Symbol	Value	Units
Peak pulse current ($t_p=8/20\mu s$)	I_{PP}	3	A
ESD voltage (Contact discharge)	V_{ESD}	± 8	kV
ESD voltage (Air discharge)		± 15	kV
Storage & Junction temperature range	T_J, T_{STG}	-55 to 150	$^{\circ}C$

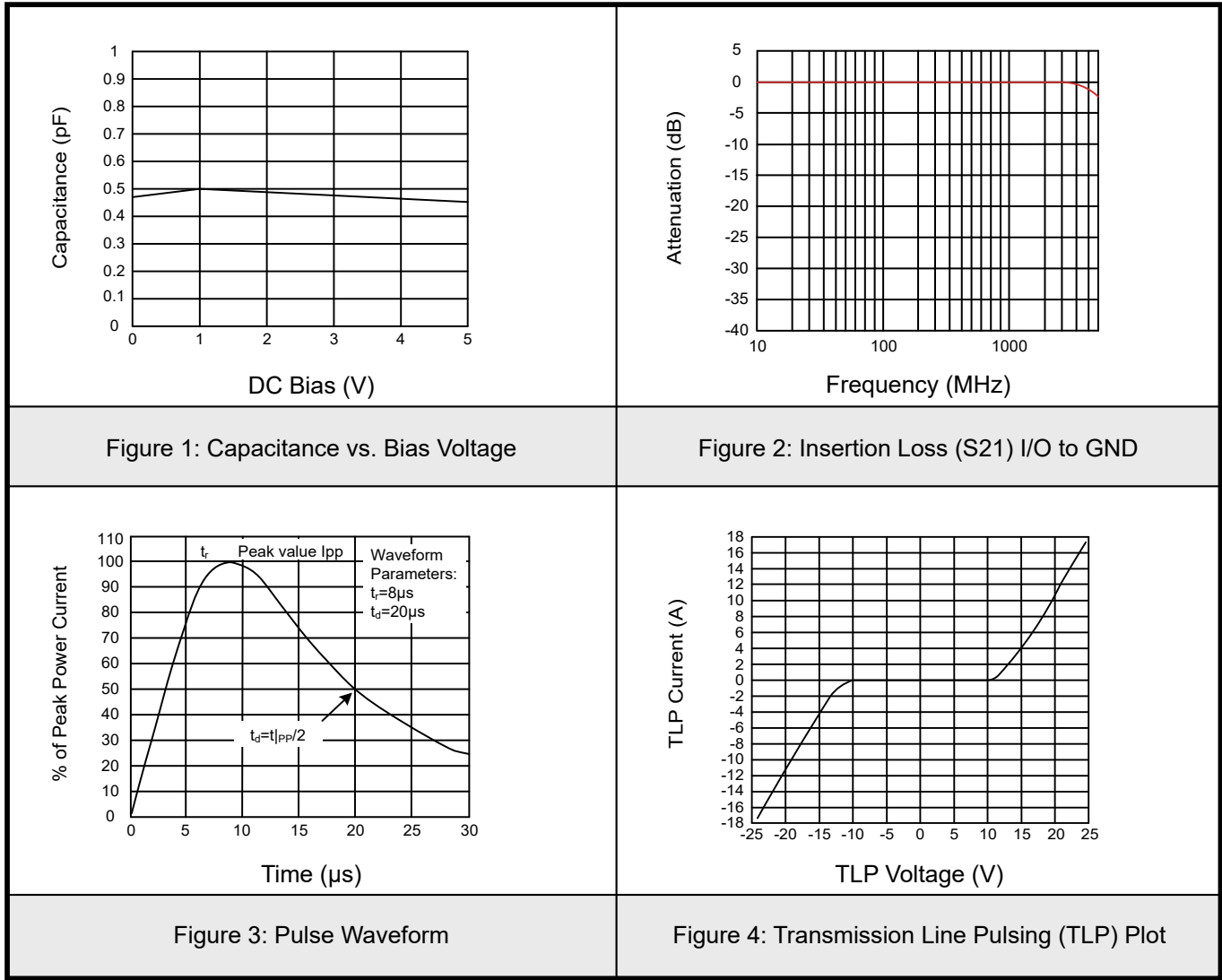


6. Electrical Characteristics ($T_J=25^{\circ}\text{C}$)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse stand-off voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_{BR}=1\text{mA}$	7			V
Reverse Leakage Current	I_R	$V_R=5\text{V}$			1	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}$		13		V
		$I_{PP}=3\text{A}$		20		V
Off state junction capacitance	C_J	$0\text{Vdc}, f=1\text{MHz}$		0.4		pF



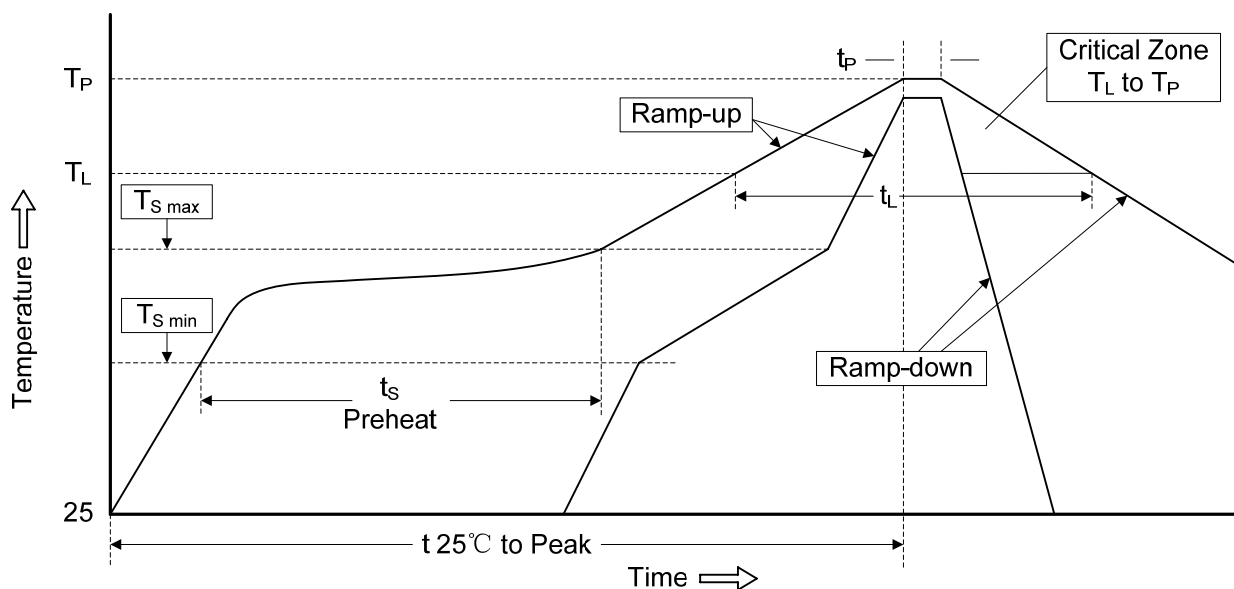
7. Typical characteristic





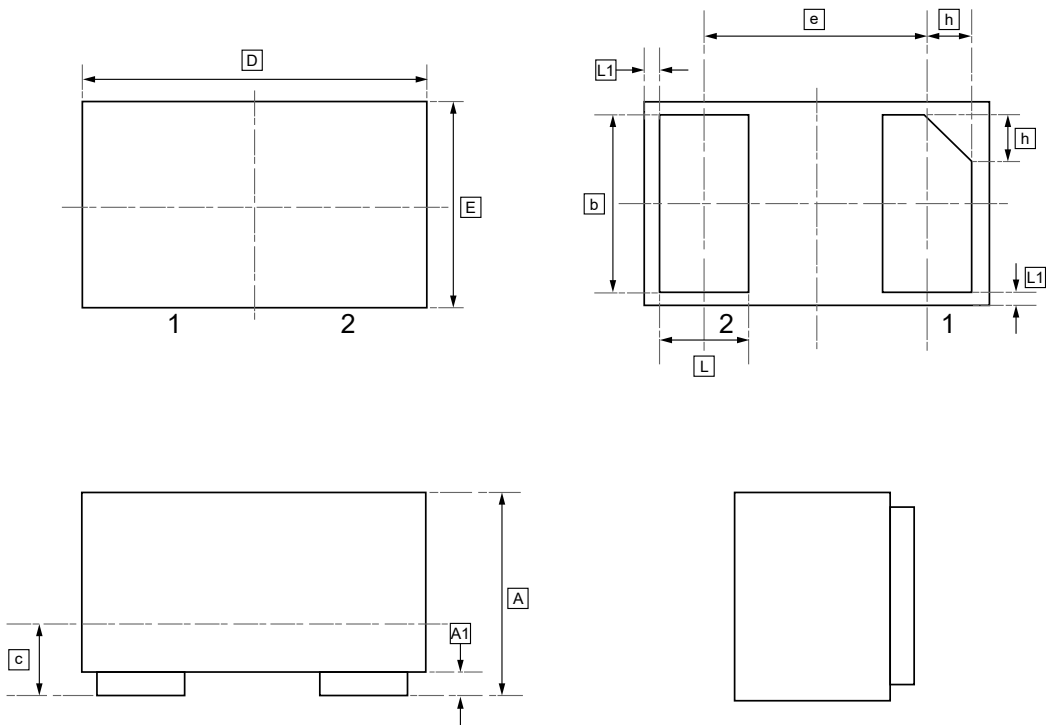
8. Recommended Soldering Conditions

Profile Feature		Pb-Free Assembly
Average ramp-up rate (T_L to T_P)		3°C/second max.
Preheat	-Temperature Min ($T_{s(min)}$)	150°C
	-Temperature Max ($T_{s(max)}$)	200°C
	-Time (Min to Max) (t_s)	60-180 secs.
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Time maintained above	-Temperature (T_L)	217°C
	-Time (T_L)	60-150 secs.
Peak Temperature (T_P)		260°C
Time within 5°C of actual Peak Temperature (T_P)		20-40 seconds
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temperature		8 min. Max





9.SOD-882 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	b	c	D	e	E	L	L1	h
Min	0.45	0.00	0.45	0.12	0.95	0.65	0.55	0.20	0.05	0.07
Max	0.55	0.05	0.55	0.18	1.05	BSC	0.65	0.30	REF	0.17



10.Ordering information



Order Code	Package	Base QTY	Delivery Mode
UMW UAD8C05L01	SOD-882	10000	Tape and reel



11.Disclaimer

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