

## 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.

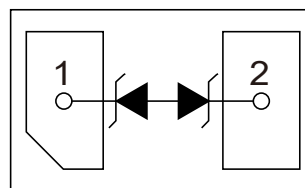
## 3.Features

- 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)	$V_{ESD}$	$\pm 8$	kV
ESD voltage (Air discharge)		$\pm 15$	kV
Storage & Junction temperature range	$T_J, T_{STG}$	-55 to 150	$^{\circ}C$

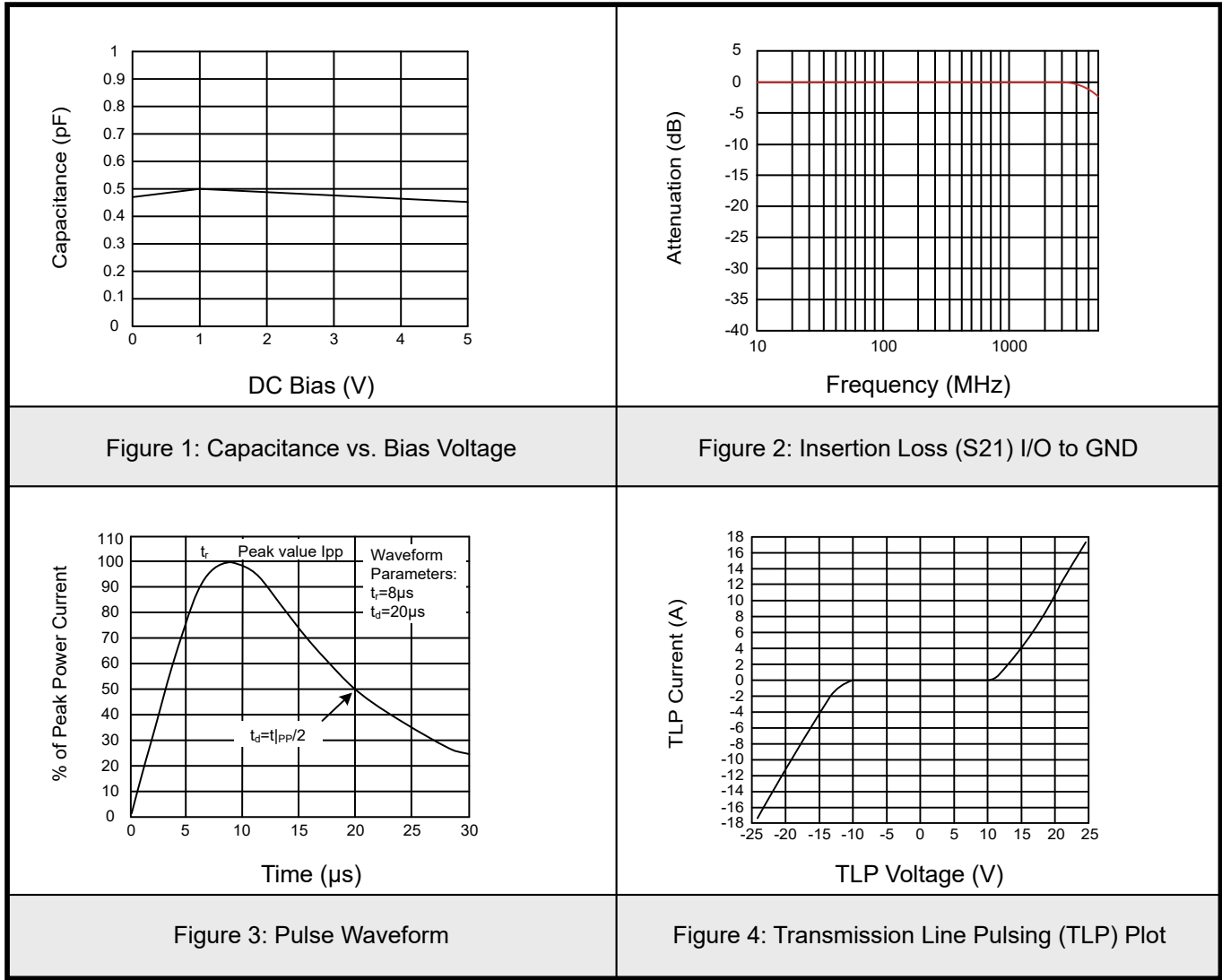


## 6. Electrical Characteristics ( $T_J=25^{\circ}\text{C}$ )

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	$\mu\text{A}$
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



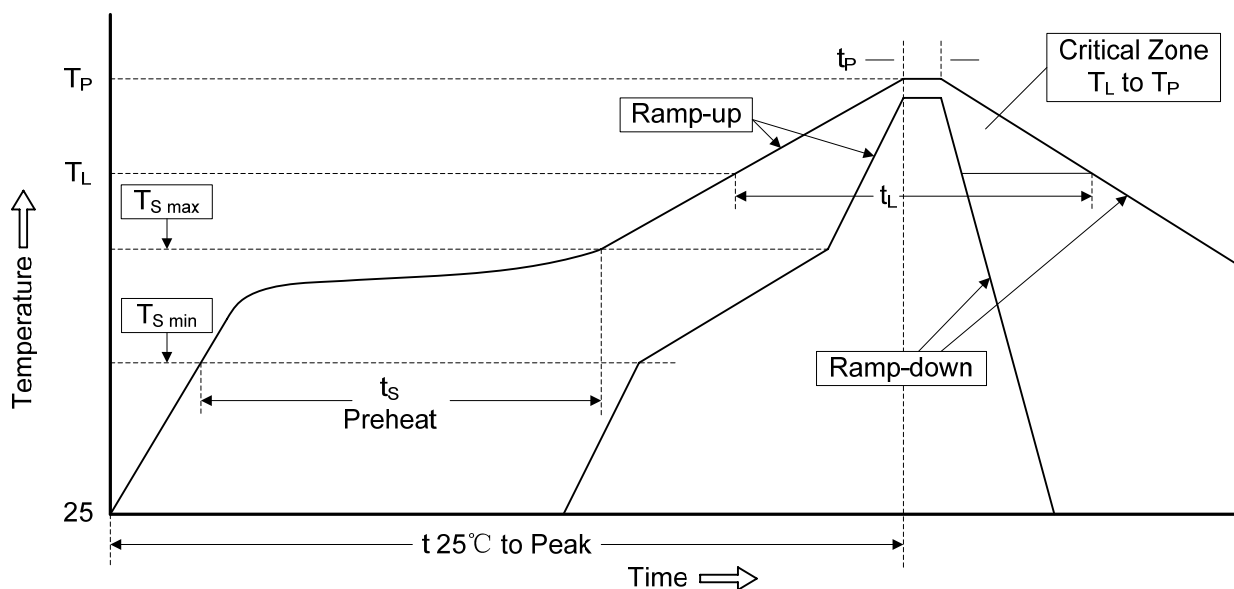
7. Typical characteristic





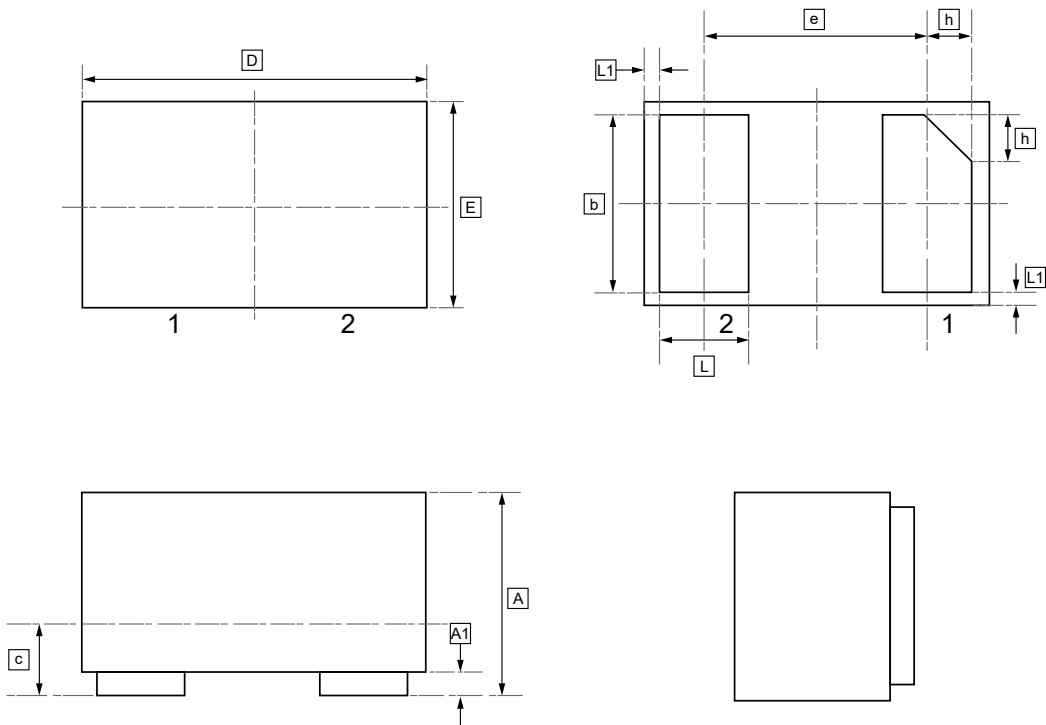
## 8. Recommended Soldering Conditions

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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