UMW UDT26A05L05UL

Low Capacitance 2-Line ESD Protection

1.Description

UDT26A05L05 is surge rated diode arrays designed to protect high speed data interfaces. It has been specifically designed to protect sensitive components which is connected to data and transmission lines from overvoltage caused by electrostatic discharge (ESD), electrical fast transients (EFT), and lightning.

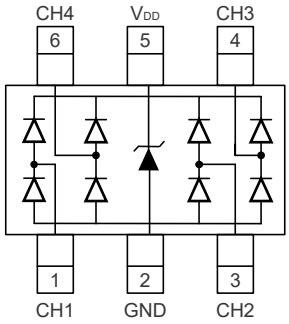
2.Applications

- SUSB power and data line protection
- 10/100/1000 Ethernet
- Video line protection
- I^2C bus protection
- WAN/LAN equipment
- ISDN S/T interface
- Microcontroller input protection
- Portable electronics

3.Features

- SOT23-6L surface mount package
- Array of surge rated, low capacitance diodes
- IEC61000-4-2 ESD 15KV Air, 8KV contact compliance
- Protects four high-speed data lines and one power line
- Working voltage: 5V
- Low leakage current
- Low clamping voltage
- Solder reflow temperature: Pure Tin-Sn, 260~270°C

4.Pinning information



SOT23-6

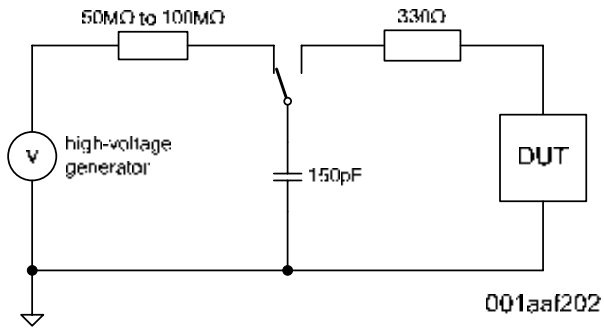
5.Absolute Maximum Ratings

Parameter	Symbol	Value	Units
ESD voltage (Contact discharge)	V_{ESD}	±8	kV
ESD voltage (Air discharge)		±15	kV
Storage temperature range	T_J, T_{STG}	-55 to 150	°C

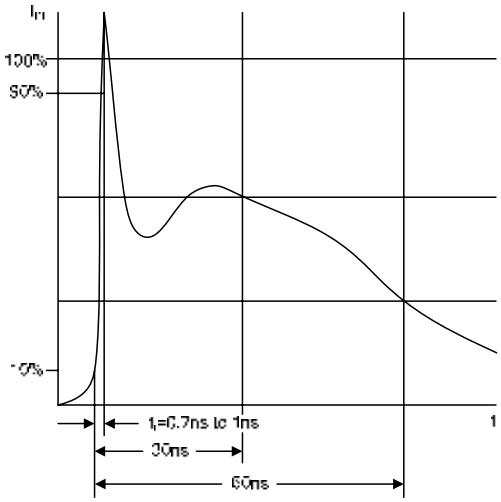
6.Electrical Characteristic

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse stand-off voltage	V_{RWM}				5	V
Reverse breakdown voltage	V_{BR}	I_{BR}=1mA	6			V
Reverse leakage current	I_R	V_R=5V			5	μA
Clamping voltage (tp=8/20μs)	V_C	I_{PP}=1A			9.8	V
Clamping voltage (tp=8/20μs)	V_C	I_{PP}=2A			16	V
Off state junction capacitance	C_J	0Vdc,f=1MHz Between I/O pins and GND		2.5		pF

IEC61000-4-2



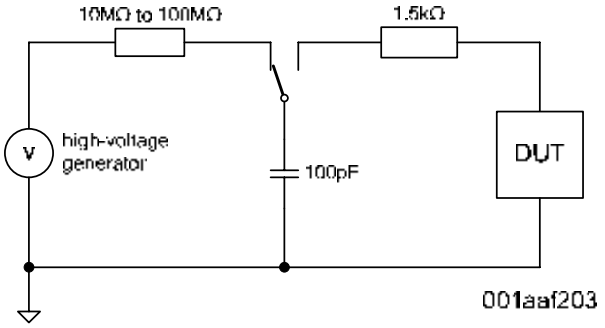
Test circuit according IEC61000-4-2



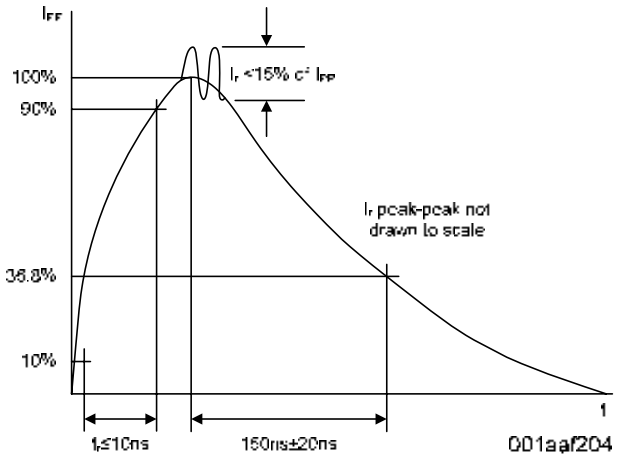
ESD surge according IEC61000- -

Human Body Model (HBM, MIL-883E method 3015.7)

The HBM standard simulates an ESD surge generated by human contact to electronic components.



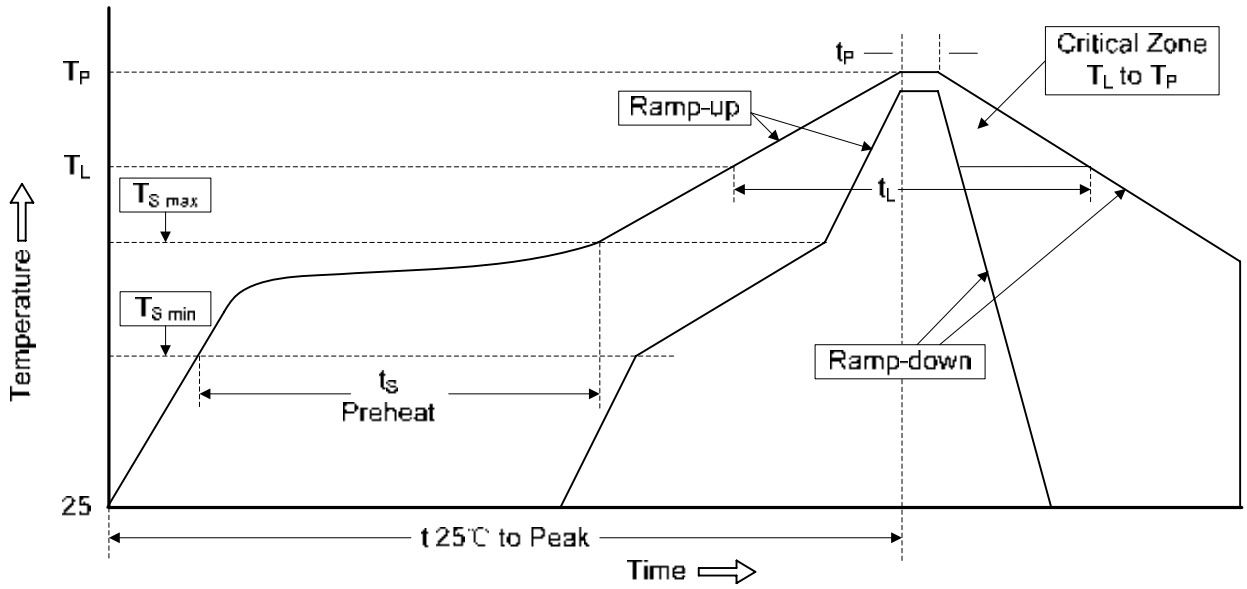
Test circuit according to MIL-883E method 3015.7



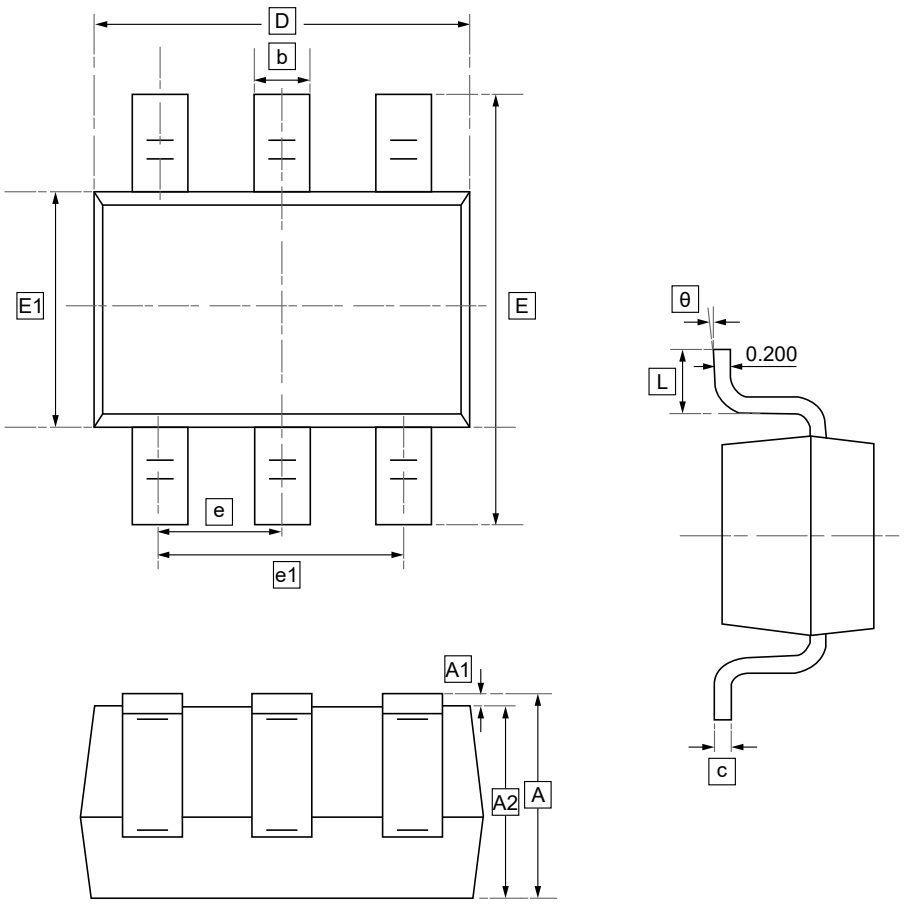
ESD surge according to MIL-883E method 3015.7

7.Soldering parameters

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) (ts)	60-180 secs.
T_{Smax} 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 Temp (T_p)		20-40 seconds
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temperature		8 min. Max



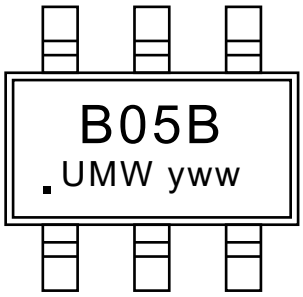
8.SOT-23-6 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	b	c	D	E1	E	e	e1	L	θ
Min	1.050	0.000	1.050	0.300	0.100	2.820	1.500	2.650	0.950	1.800	0.300	0°
Max	1.250	0.100	1.150	0.500	0.200	3.020	1.700	2.950	BSC	2.000	0.600	8°

9.Ordering information



yww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW UDT26A05L05UL	SOT23-6	3000	Tape and reel

10.Disclaimer

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