UMW UET14A05L03-BK

1.Features

UET14A05L03 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.

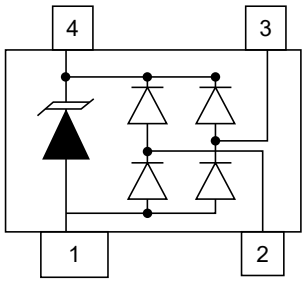
2.Applications

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

3.Applications

- IEC61000-4-2 ESD 15KV Air, 8KV contact compliance
- SOT-143 surface mount package
- Protects two high-speed data lines and one power line
- Array of surge rated, low capacitance diodes
- Working voltage: 5V
- Low leakage current
- Low clamping voltage
- Lead Free/RoHS compliant
- Solder reflow temperature:
- Pure Tin-Sn, 260~270

4.Pinning information



SOT-143

5.Absolute Maximum Ratings

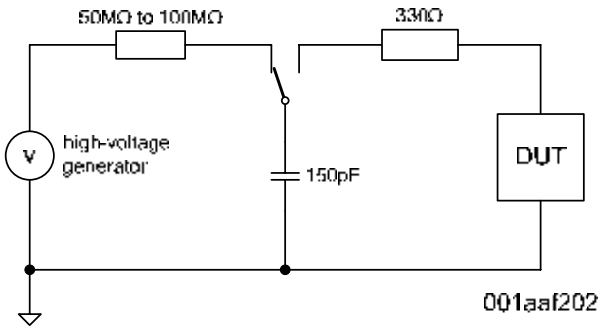
Parameter	Symbol	Value	Units
Peak pulse current (t_p=8/20μs waveform)	I_{PP}	3	A
ESD voltage (Contact discharge)	V_{ESD}	±8	kV
ESD voltage (Air discharge)		±15	kV
Storage & Junction temperature range	T_{STG},T_J	-55 to 150	°C

6.Electrical Characteristics(T_C=25°C unless otherwise noted)

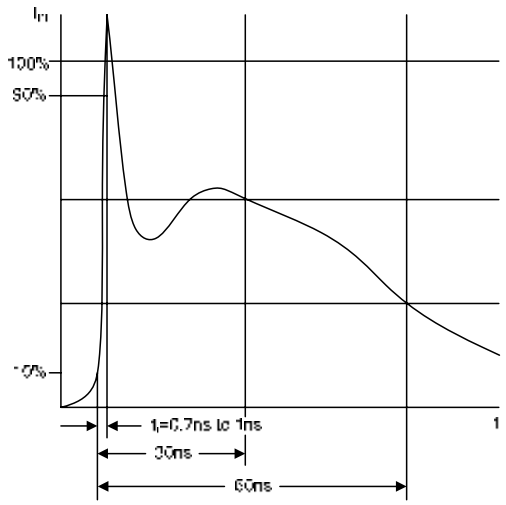
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse stand-off voltage	V_{RWM}				5	V
Reverse breakdown voltage	V_{BR}	I_{BR}=1mA	6			V
Reverse Leakage Current	I_R	V_R=5V			5	μA
Clamping voltage (t_p=8/20μs)	V_C	I_{PP}=1A			9.8	V
		I_{PP}=2A			15	V
Off state junction capacitance	C_J	V_R=0V, f=1MHz, Between I/O pins and GND		0.8		pF

7.IEC61000-4-2

Interfaces of consumer electronic equipment are widely specified according to the International Electrotechnical Commission standard IEC61000-4-2. This standard is not targeted towards particular devices but towards general equipment, systems and subsystems that may be involved in electrostatic discharge. consists of a 150pF capacitor and a 330Ω series resistor representing the counterpart to the Device Under Test (DUT).



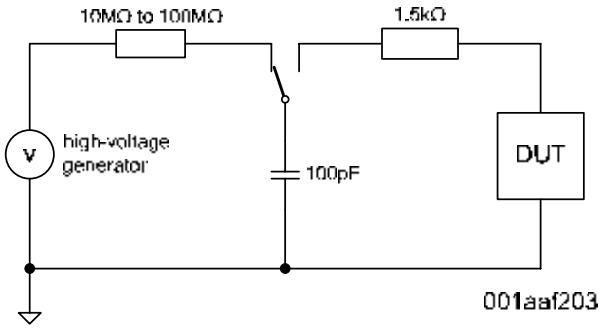
Test circuit according IEC61000-4-2



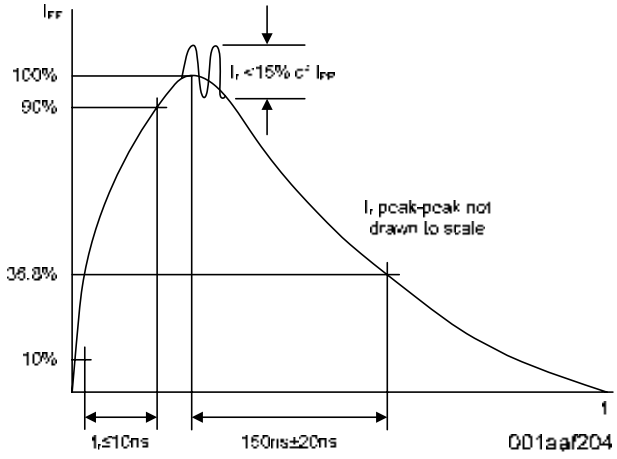
ESD surge according IEC61000-4-2

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

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

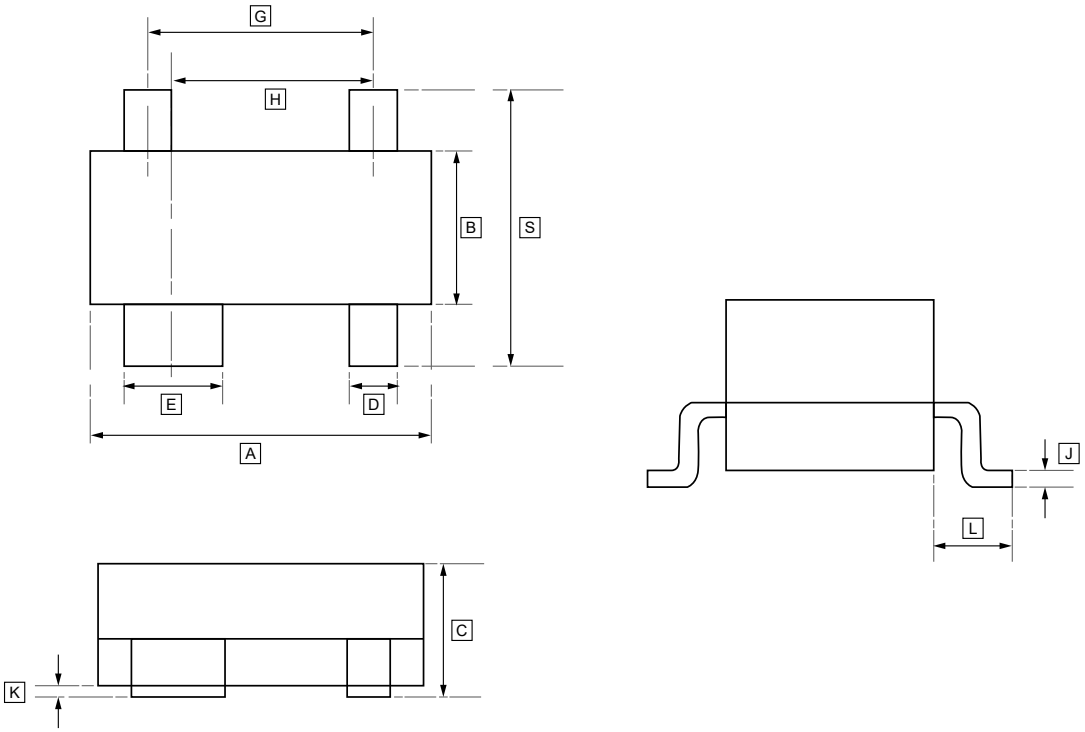


Test circuit according to MIL-E method 3015.7



ESD surge according to MIL-883E method 3015.7

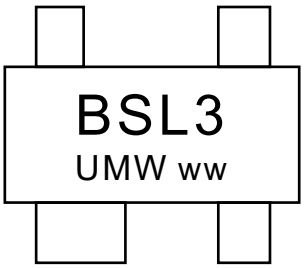
8.SOT-143 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	B	C	D	E	G	H	J	K	L	S
Min	2.80	1.20	0.80	0.37	0.76	1.92	1.72	0.085	0.013	0.254	2.10
Max	3.04	1.40	1.20	0.510	0.940	BSC	BSC	0.180	0.10	0.55	2.64

9.Ordering information



ww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW UET14A05L03-BK	SOT-143	3000	Tape and reel

10.Disclaimer

UMW reserves the right to make changes to all products, specifications. Customers should obtain the latest version of product documentation and verify the completeness and currency of the information before placing an order.

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