UMW AZ5123-01H

1.Description

The AZ5123-01H is designed to protect voltage sensitive components from damage or latch-up due to ESD. Excellent clamping capability, low leakage, and fast response time provide best in class protection on designs that are exposed to ESD for board level. Because of its small size and bi-directional design, it is ideal for use in cellular phones, MP3 players, and portable applications that require audio line protection.

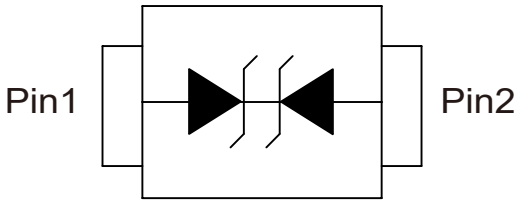
2.Features

- IEC 61000-4-2 Level 4 ESD Protection
- - ±25kV Contact Discharge
- - ±25kV Air Discharge
- 50W Peak pulse Power (8/20us)
- Low clamping voltage
- Working voltage: 3.3V
- Low leakage current
- RoHS compliant
- Protecting one bi-directional lines
- Junction capacitance: 12pF Typ

3.Applications

- Cellular handsets and accessories
- Portable digital assistants
- Notebooks & handhelds
- Digital cameras
- MP3 players
- Peripherals

4.Pinning information



SOD-523

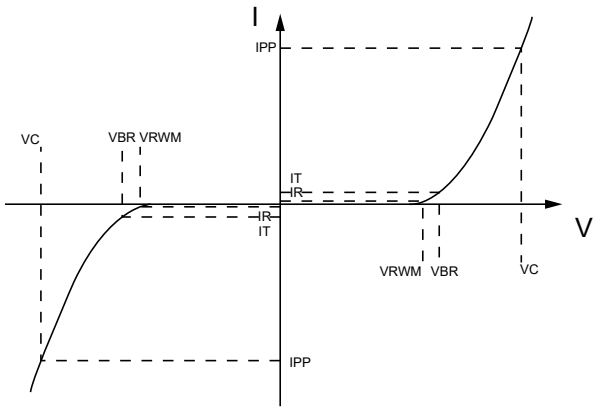
5.Absolute Maximum Ratings

Parameter	Symbol	Min.	Max.	Units
Peak pulse power (t_p=8/20us)@25°C	P_{PK}		50	W
Peak pulse current (tp=8/20us)@25°C	I_{PP}		8	A
ESD (IEC61000-4-2 air discharge) @25°C	V_{ESD}		±25	kV
ESD (IEC61000-4-2 contact discharge) @25°C			±25	kV
Junction temperature	T_J		150	°C
Operating temperature	T_{OP}	-40	125	°C
Storage temperature	T_{STG}	-55	150	°C
Lead temperature	T_L		260	°C

6.Electrical Characteristic (T_A=25°C unless otherwise noted)

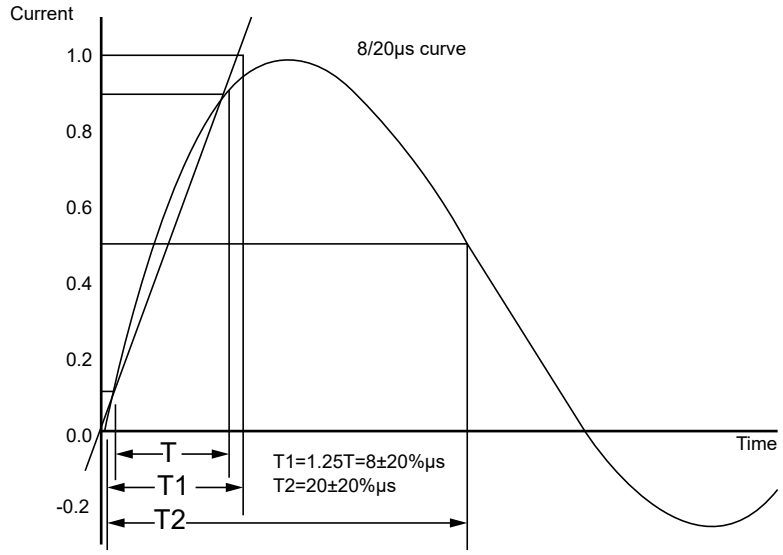
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Stand-off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	3.8			V
Reverse Leakage Current	I_R	V_{RWM}=3.3V			1	μA
Clamping Voltage	V_C	I_{PP}=1A(8 x 20μs pulse)		6		V
Clamping Voltage	V_C	I_{PP}=8A(8 x 20μs pulse)		10		V
Junction Capacitance	C_J	V_R=0V, f=1MHz, I/O to GND		15		pF

7.Portion Electronics Parameter

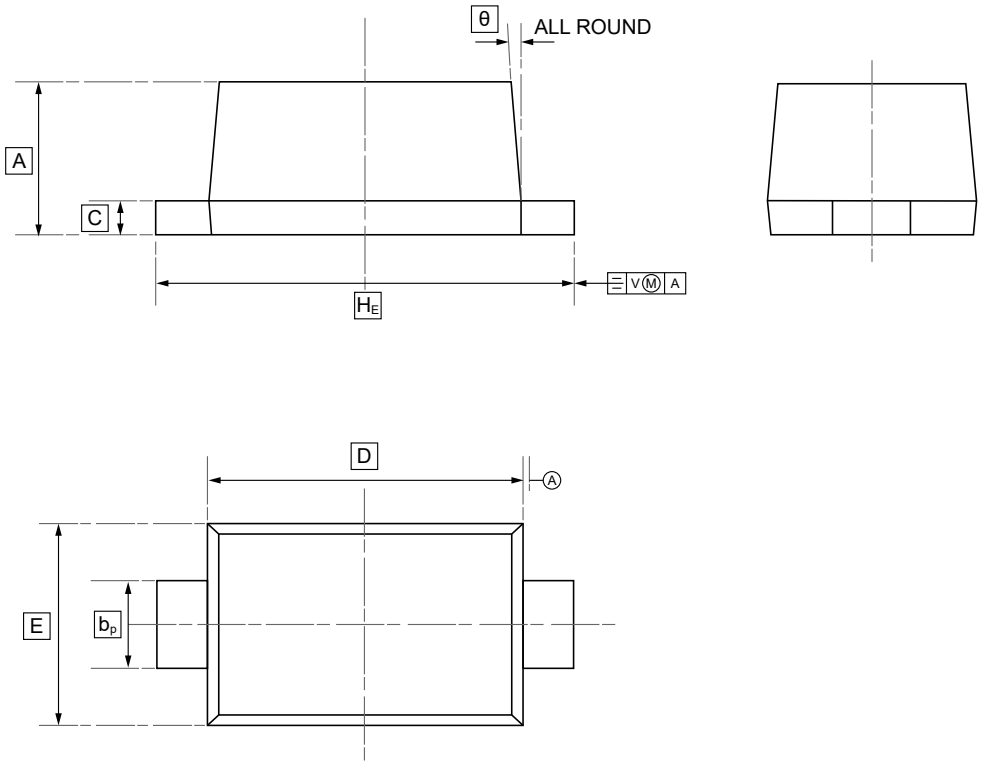


Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}

8.Typical characteristic



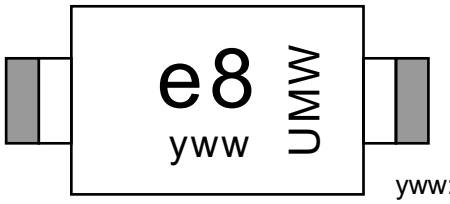
9.SOD-523 Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	b_p	C	D	E	H_E	θ
Min	0.58	0.3	0.100	1.15	0.75	1.5	5°
Max	0.68	0.4	0.135	1.25	0.85	1.7	

10.Ordering information



yww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW AZ5123-01H	SOD-523	3000	Tape and reel

11.Disclaimer

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