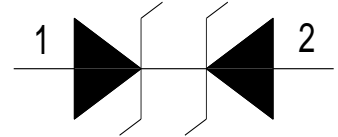


Description

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.



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.

Applications

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

Absolute Maximum rating Over operating free -air temperature range (unless otherwise noted)

Parameters	Symbol	Min.	Max.	Unit
Peak pulse power (tp=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	V _{ESD}		±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

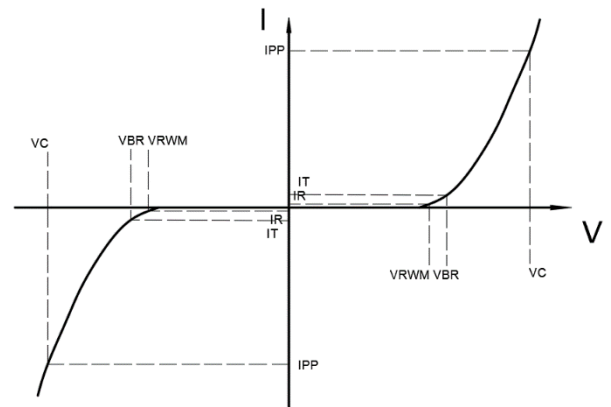
Table-3 Absolute Maximum rating

Electrical Characteristics At TA = 25 °C unless other wise noted

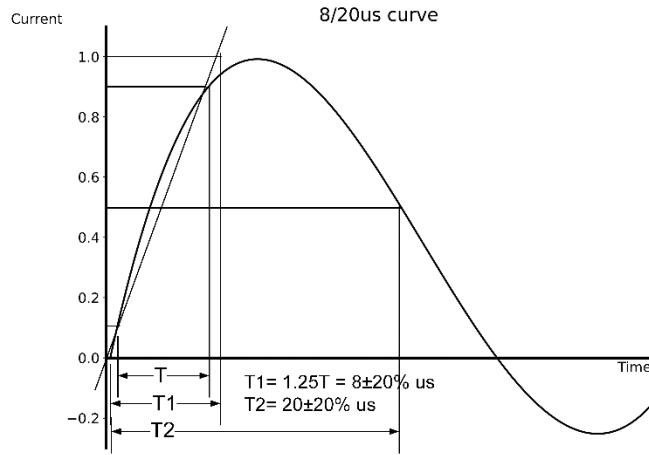
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				3.3	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	3.8			V
Reverse Leakage Current	I_R	$V_{RWM}=3.3V$			1	μA
Clamping Voltage	V_C	$I_{PP}=1A; t_p=8/20\mu s$		6		V
Clamping Voltage	V_C	$I_{PP}=8A; t_p=8/20\mu s$		10		V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

Table-4 Electrical Characteristics

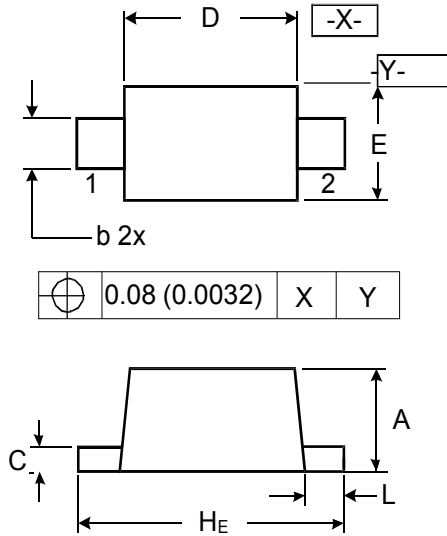
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}



Typical Characteristic



Outline Drawing – SOD-523



DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H _E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Marking

Ordering information

Order code	Package	Base qty	Delivery mode
UMW AZ5123-01H	SOD-523	3000	Tape and reel

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[SMBJ33CATR](#) [SMBJ6.5A](#) [SMBJ8.0A](#) [ESD101-B1-02ELS E6327](#) [ESD112-B1-02EL E6327](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-](#)
[HF](#) [3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [JANTX1N6126A](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [SCM1293A-04SO](#)
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[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)