

1.Description

This is ultra low capacitance TVS arrays designed to protect high speed data interfaces. It has been specifically designed to protect sensitive components which is connected to high-speed data and transmission lines from overvoltage caused by electrostatic (ESD), cable discharge events (CDE) and electrical fast transients (EFT).

3.Features

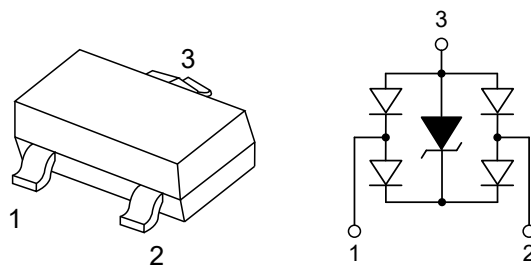
- IEC61000-4-2 ESD 15KV Air, 8KV contact compliance
- Protects two high speed data lines
- Working voltage: 5V

2.Applications

- HDMI interface protection
- Mobile display digital interface
- RF/Antenna circuits
- USB 2.0 & Firewire ports
- GaAs photodetector protection
- HBT power Amp protection
- Infiniband transceiver protection

- Ultra low capacitance and clamping voltages
- Low leakage current
- Solder reflow temperature:
Pure Tin-Sn, 260~270°C

4.Pinning information



SOT-23



5. Absolute Maximum Ratings

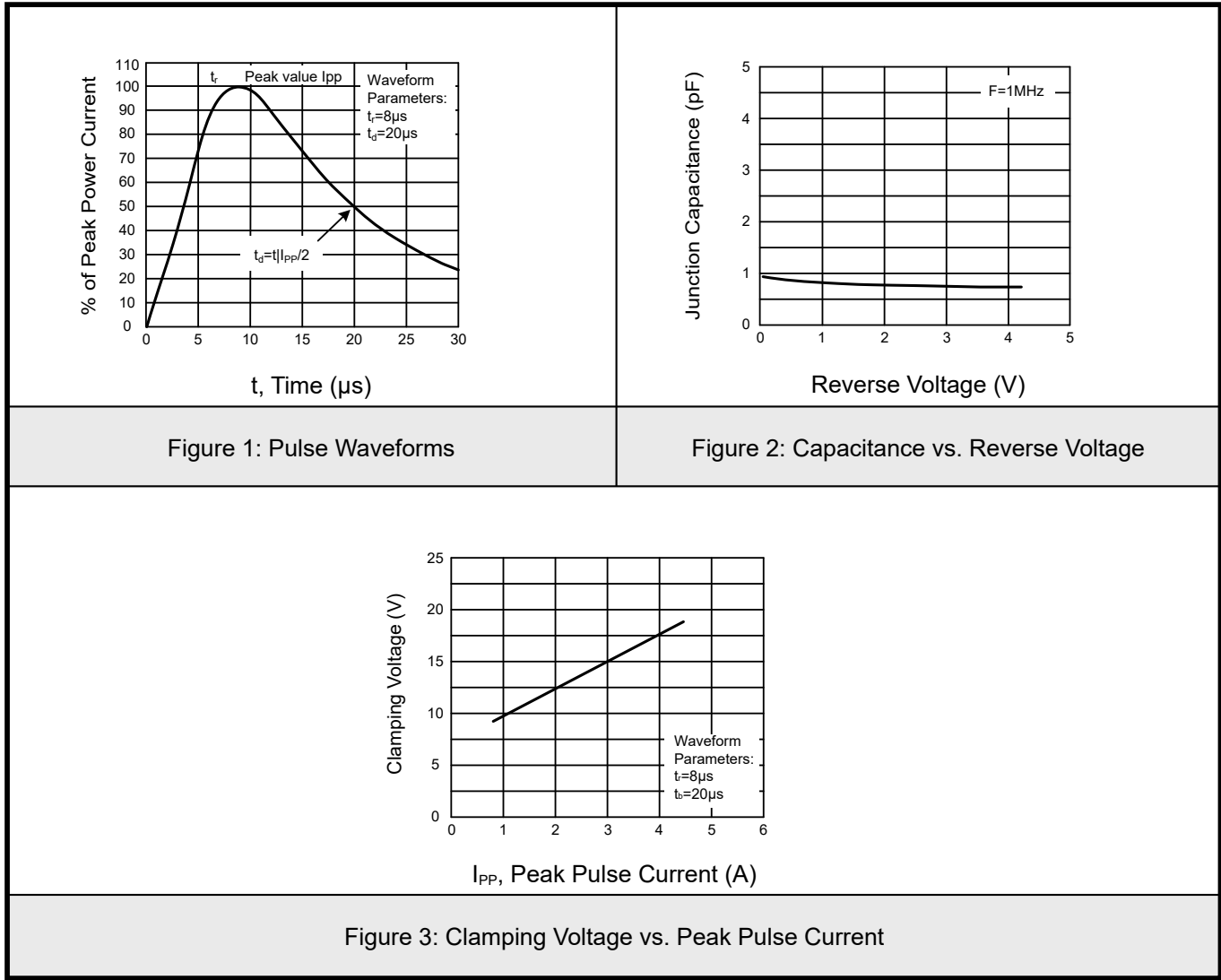
Parameter	Symbol	Maximum	Units
Peak pulse power ($t_p=8/20\mu s$ waveform)	I_{PP}	3	A
ESD voltage (Contact discharge)	V_{ESD}	± 8	kV
ESD voltage (Air discharge)		± 15	kV
Storage & Junction temperature range	T_{STG}, T_J	-55 to 150	$^{\circ}C$

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

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	$V_R=5V$, Each I/O pin			0.5	μA
Clamping voltage ($t_p=8/20\mu s$)	V_C	$I_{PP}=1A$			9.8	V
		$I_{PP}=3A$			15	V
Off state junction capacitance	C_J	0Vdc, $f=1MHz$ Between I/O pins and GND		0.8		pF
Off state junction capacitance	C_J	0Vdc, $f=1MHz$ Between I/O pins		0.4		pF



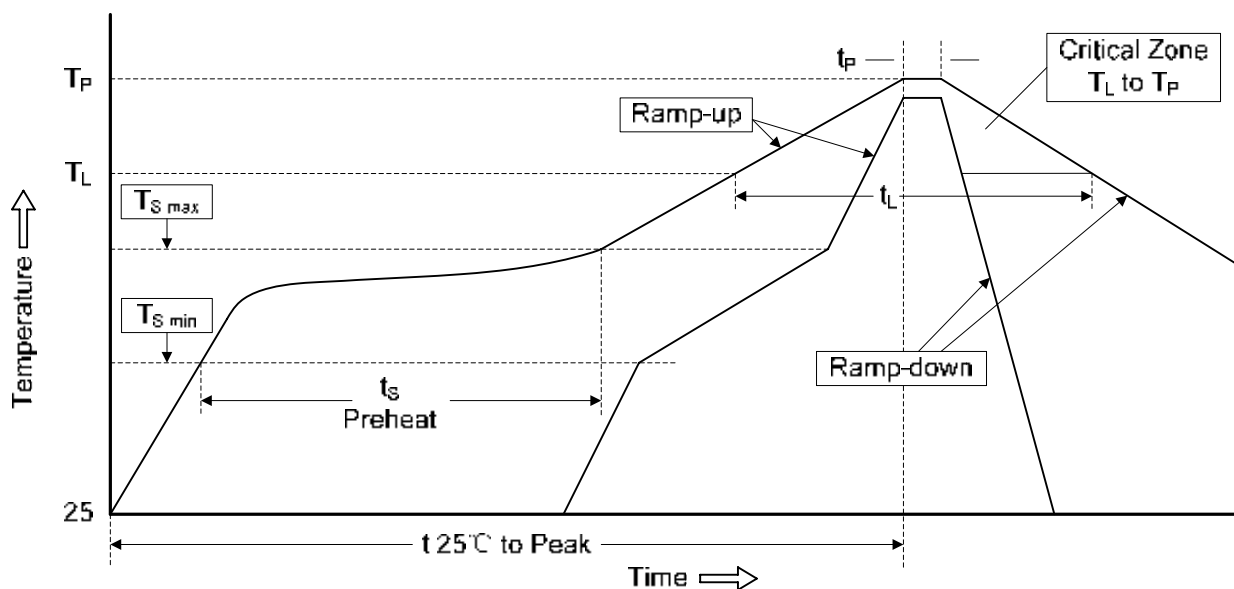
7. Typical characteristic





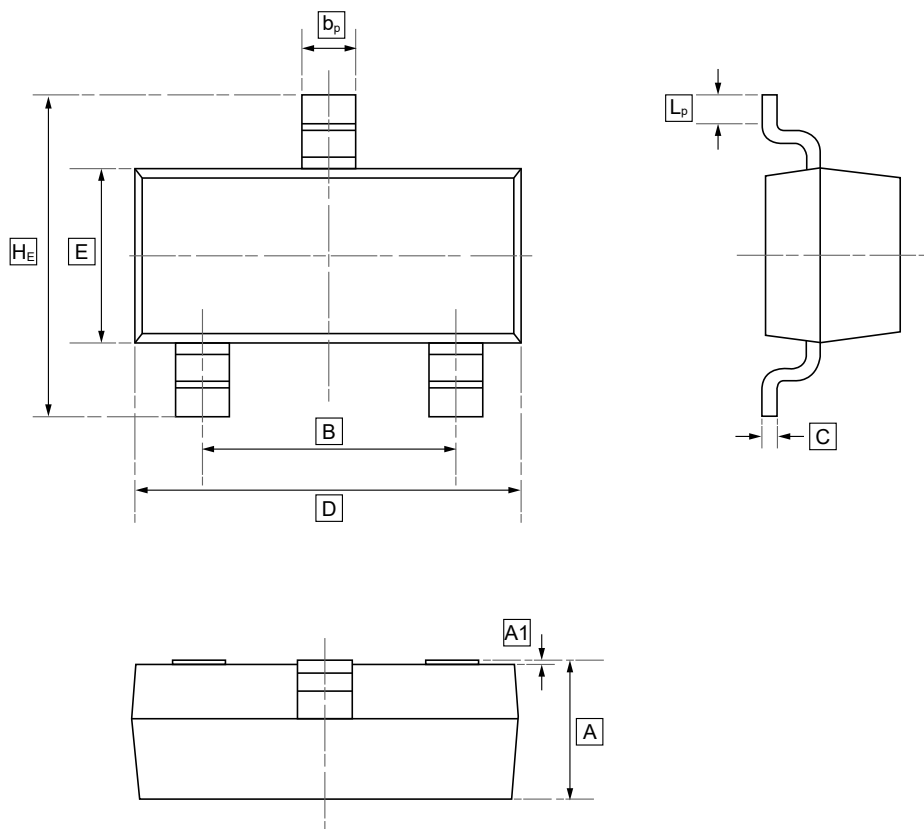
8. Recommended Soldering Conditions

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.SOT-23 Package Outline Dimensions

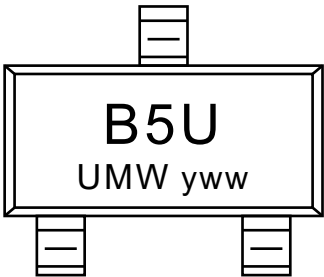


DIMENSIONS (mm are the original dimensions)

Symbol	A	B	b_p	C	D	E	H_E	A1	L_p
Min	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20
Max	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50



10.Ordering information



yww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW UBT23A05L02	SOT-23	3000	Tape and reel



11.Disclaimer

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