

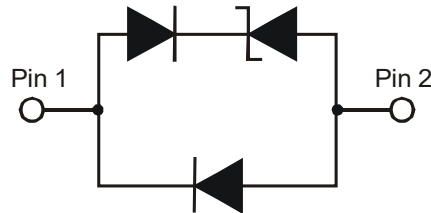
1.Features

- IEC 61000-4-2 (ESD): Air $\pm 15\text{kV}$, Contact $\pm 8\text{kV}$
- 1 Channel of ESD protection
- Low Channel Input Capacitance of 0.85pF Typical
- Typically Used at High Speed Ports such as USB 2.0,
- IEEE1394, Serial ATA, DVI, HDMI, PCI

2.Mechanical Data

- Case: SOD323
- Case Material: Molded Plastic
"Green" Molding Compound

3.Pinning information



SOD-323

4.Maximum Ratings

Parameter	Symbol	Conditions	Value	Units
Peak Pulse Current	I_{PP}	8/20 μs , Per Figure 3	5	$^{\circ}\text{C/W}$
ESD Protection – Contact Discharge	$V_{\text{ESD_Contact}}$	Standard IEC 61000-4-2	± 8	$^{\circ}\text{C/W}$
ESD Protection – Air Discharge	$V_{\text{ESD_Air}}$	Standard IEC 61000-4-2	± 15	$^{\circ}\text{C/W}$



5. Thermal Characteristics

Parameter	Symbol	Value	Units
Package Power Dissipation (Note 5)	P_D	250	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	500	°C/W
Storage Temperature Range	T_J, T_{STG}	-65 to 150	°C

6. Electrical Characteristic ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse working voltage	V_{RWM}				3.3	V
Reverse current (Note 6)	I_R	$V_R=V_{RWM}=3.3\text{V}$		0.1	1	μA
Reverse breakdown voltage	V_{BR}	$I_R=1\text{mA}$	6			V
Forward voltage	V_F	$I_F=8\text{mA}$	0.6	0.8	0.95	V
Reverse clamping voltage, Positive Transients	V_{CL1}	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$		10		V
Reverse clamping voltage, Negative Transients	V_{CL2}	$I_{PP}=-1\text{A}, t_p=8/20\mu\text{s}$		-1.7		V
Dynamic resistance	R_{DYN}	$I_R=1\text{A}, t_p=8/20\mu\text{s}$		0.9		Ω
Capacitance	C_T	$V_R=1.65\text{V}, f=1\text{MHz}$		0.85	1.2	pF



7. Typical characteristic

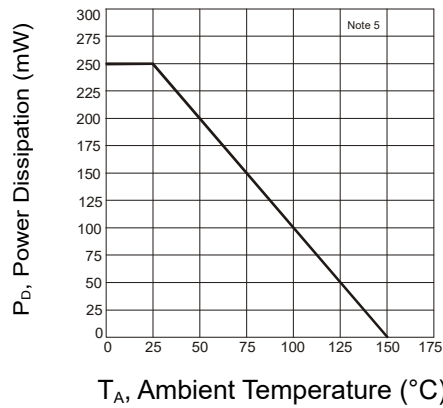


Figure 1: Power Derating Curve

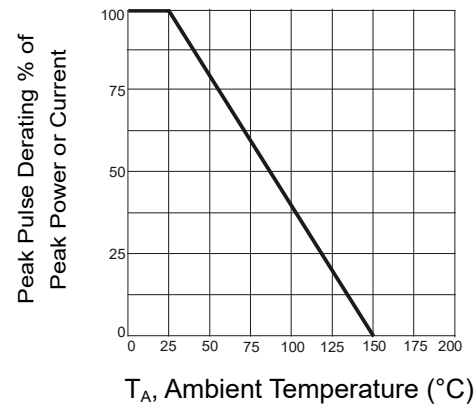


Figure 2: Pulse Derating Curve

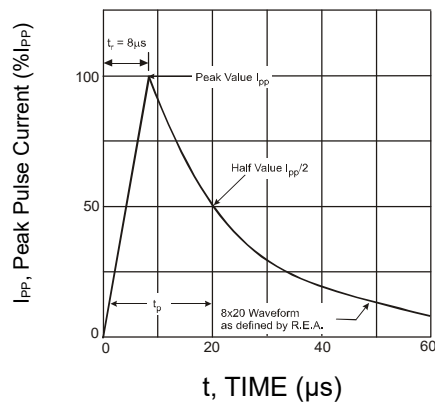


Figure 3: Pulse Waveform

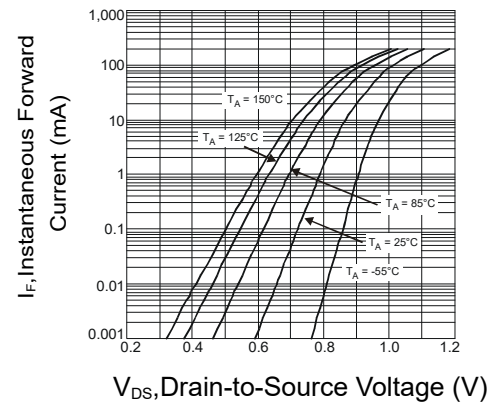


Figure 4: Capacitance

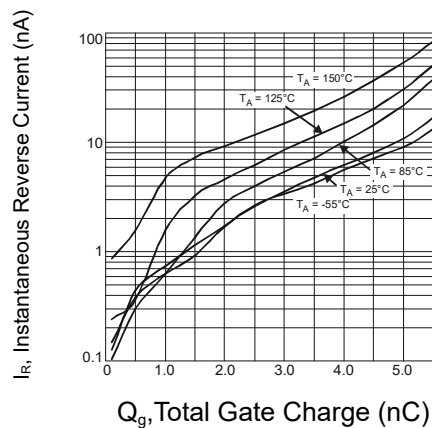


Figure 5: Gate Charge

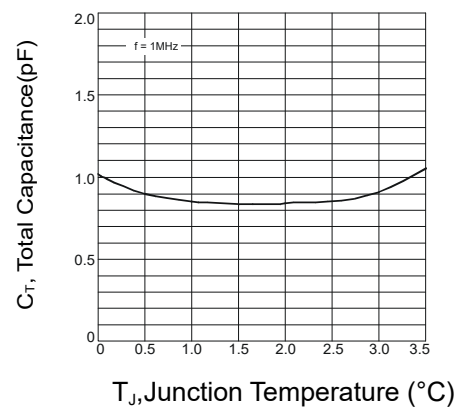
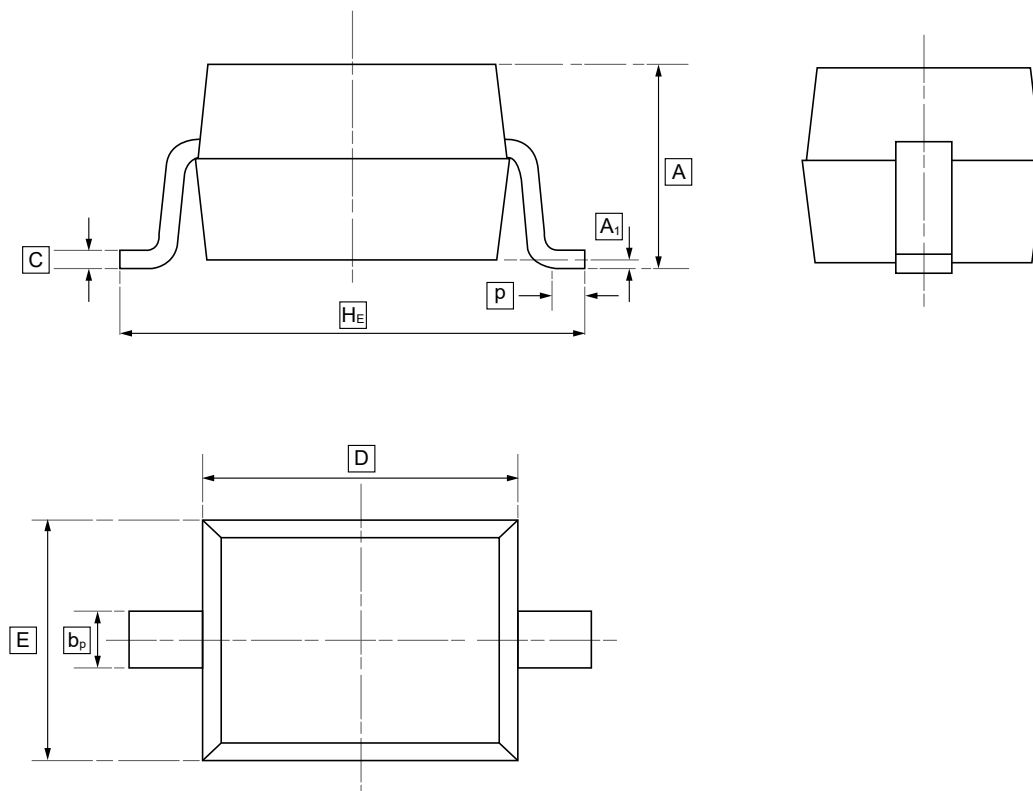


Figure 6: On-Resistance vs. Junction Temperature



8.SOD-323 Package Outline Dimensions

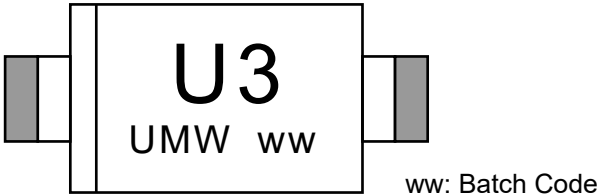


DIMENSIONS (mm are the original dimensions)

Symbol	A	b_p	C	D	E	H_E	A_1	P
Min	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20
Max	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50



9.Ordering information



Order Code	Package	Base QTY	Delivery Mode
UMW D1213A-01WS	SOD-323	3000	Tape and reel



10.Disclaimer

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