

1.Description

The UMW SDD32C24L01 is designed to protect low voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium.

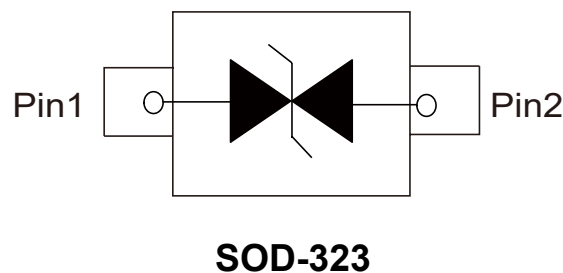
3.Features

- IEC61000-4-2 ESD 15KV Air, 8KV contact compliance
- Protects one I/O line
- Peak power dissipation of 320W under 8/20 μ s waveform

2.Applications

- Cellular handsets & Accessories
- Cordless phones
- Personal digital assistants (PDAs)
- Notebooks & Handhelds
- Portable instrumentation
- Digital cameras
- Peripherals
- MP3 players
- Working voltage: 24V
- Low leakage current
- Low clamping voltage
- Solder reflow temperature: Pure Tin-Sn 260~270°C

4.Pinning information





5. Absolute Maximum Ratings

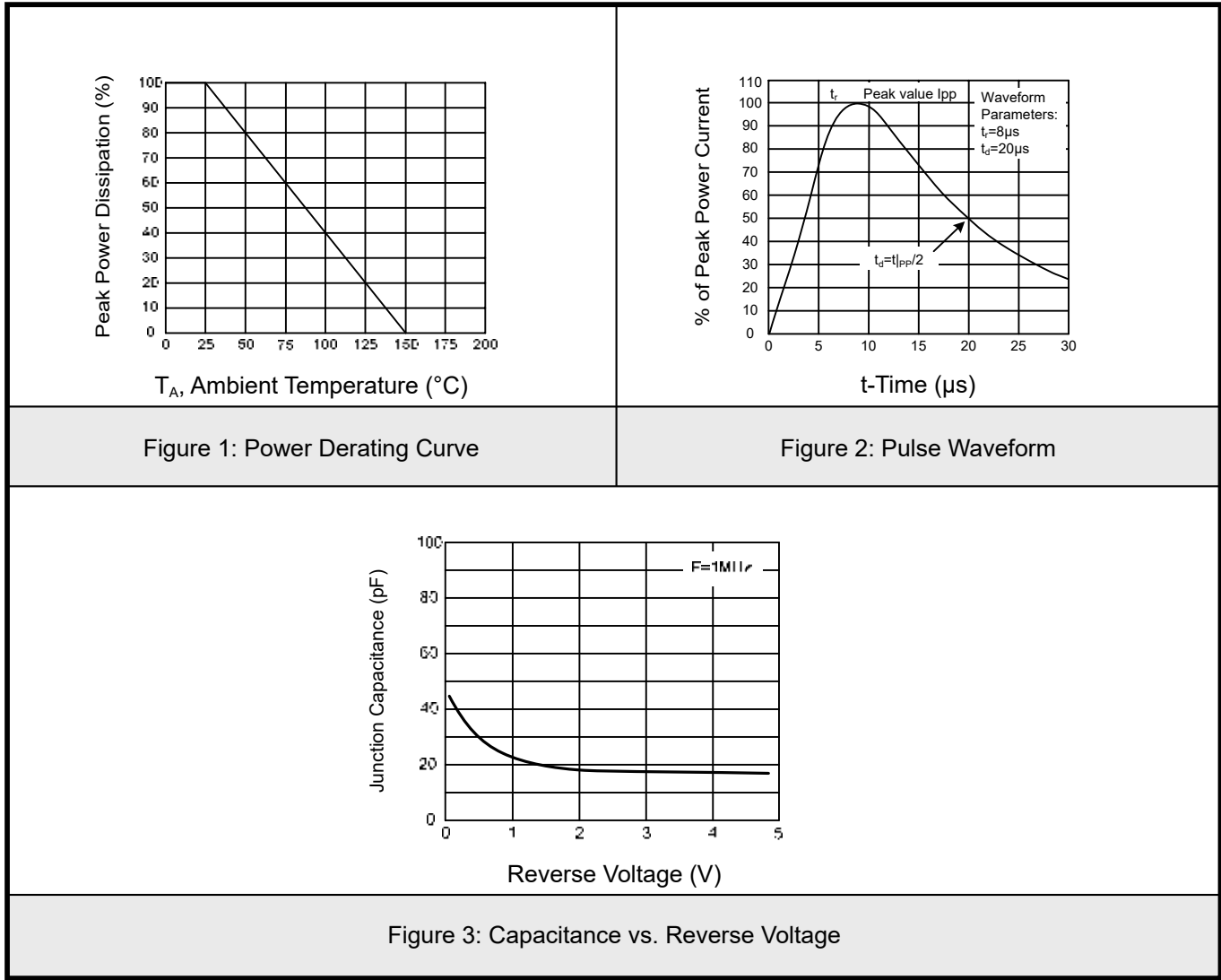
Parameter	Symbol	Maximum	Units
Peak pulse power (tp=8/20us waveform)	P _{PP}	320	W
ESD voltage (Contact discharge)	V _{ESD}	±8	kV
ESD voltage (Air discharge)		±15	kV
Storage & Junction temperature range	T _{STG} , T _J	-55 to 150	°C

6. Electrical Characteristics (T_J=25°C)

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse stand-off voltage	V _{RWM}				24	V
Reverse breakdown voltage	V _{BR}	I _{BR} =1mA	26.7			V
Reverse leakage current	I _R	V _R =24V			1	μA
Clamping voltage (tp=8/20μs)	V _C	I _{PP} =1A			43	V
Off state junction capacitance	C _J	0Vdc, f=1MHz		37		pF



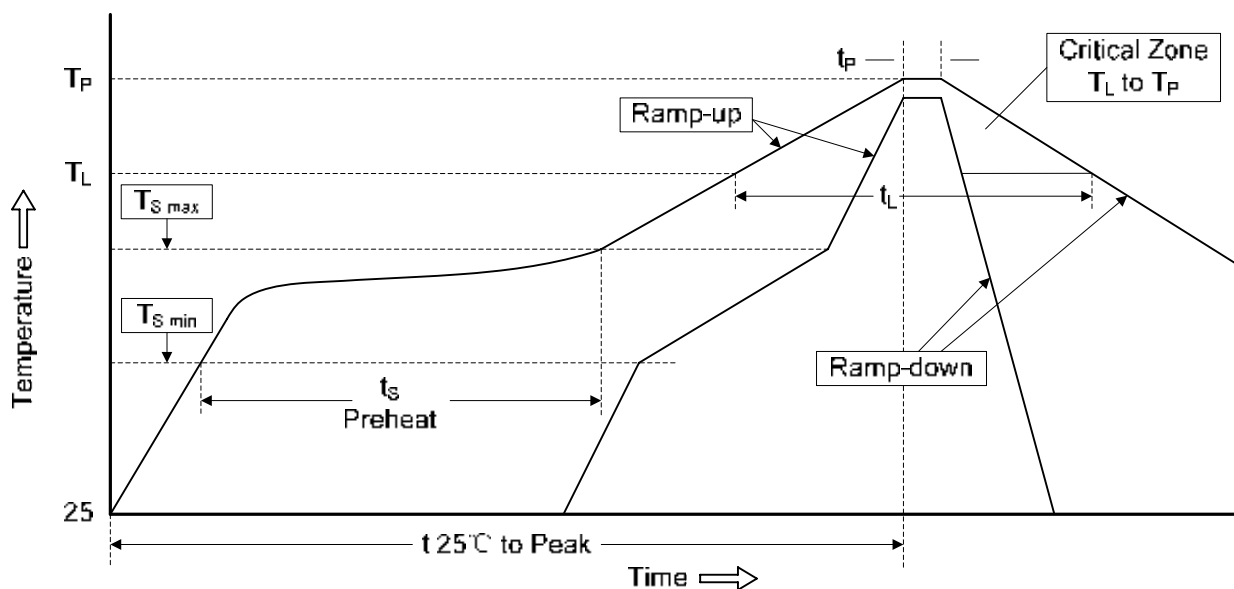
7. Typical characteristic





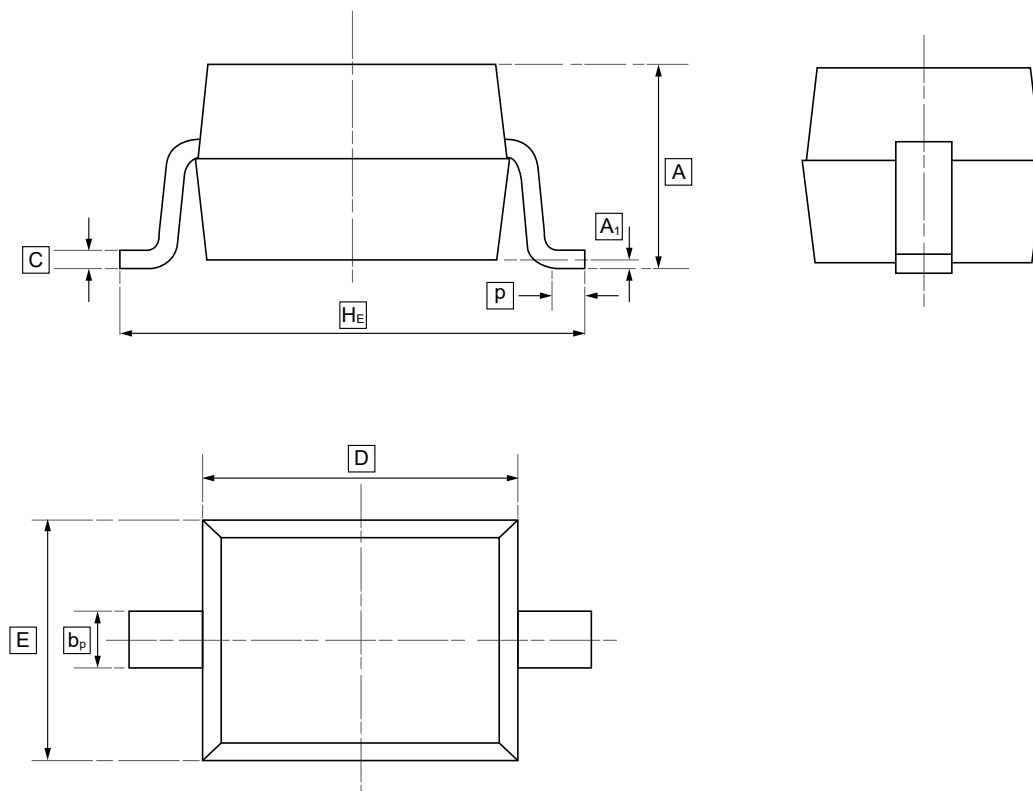
8. Recommended Soldering Conditions

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.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



10.Ordering information



ww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW SDD32C24L01	SOD-323	3000	Tape and reel



11.Disclaimer

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