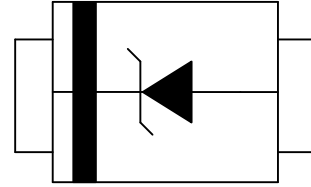


Description

SDD32A36L01 is designed to protect low voltage sensitive components from ESD and transient voltage events. It is designed to protect sensitive semiconductor components from damage or upset due to electrostatic discharge(ESD), electrical fast transients(EFT), and cable discharge events(CDE).



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
- Working voltage: 36V
- Low leakage current
- Low clamping voltage
- Solder reflow temperature: Pure Tin-Sn, 260~270°C

Applications

- Cellular handsets & Accessories
- Cordless phones
- Personal digital assistants (PDAs)
- Notebooks & Handhelds
- Portable instrumentation
- Digital cameras
- Peripherals
- MP3 players

Maximum Ratings

Rating	Symbol	Value	Unit
Peak pulse power (tp=8/20 μ s waveform)	P _{PP}	320	W
ESD voltage (Contact discharge)	V _{ESD}	± 8	kV
ESD voltage (Air discharge)		± 15	
Storage & operating temperature range	T _{STG} , T _J	-55~+150	°C

Electrical Characteristics (T_J=25°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	V _{RWM}				36	V
Reverse breakdown voltage	V _{BR}	I _{BR} =1mA	40			V
Reverse leakage current	I _R	V _R =36V			1	μA
Clamping voltage (tp=8/20μs)	V _C	I _{PP} =1A			51	V
Clamping voltage (tp=8/20μs)	V _C	I _{PP} =3A			75	V
Peak pulse current (tp=8/20μs)	I _{PP}				3	A
Off state junction capacitance	C _J	0Vdc, f=1MHz		70		pF

Typical Characteristics Curves

Figure 1. Power Derating Curve

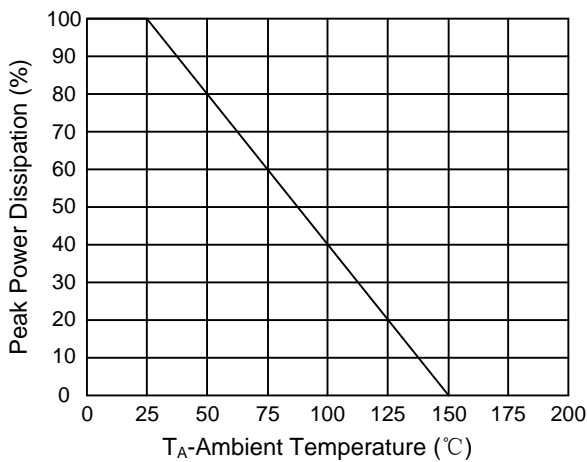


Figure 2. Pulse Waveform

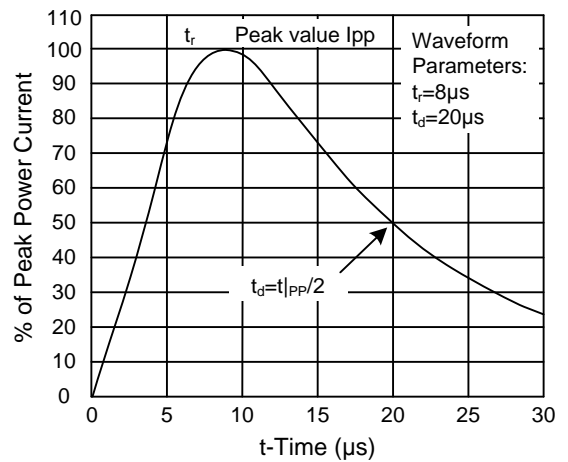
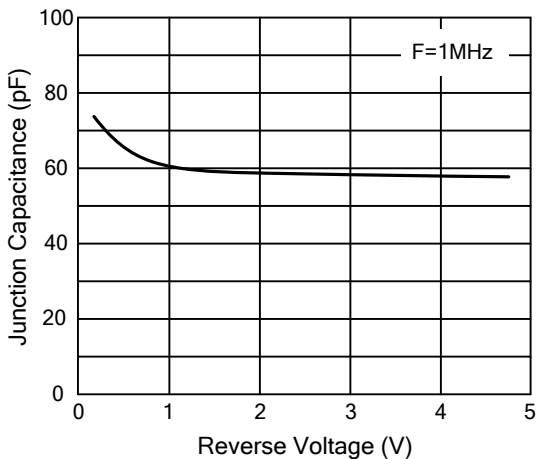
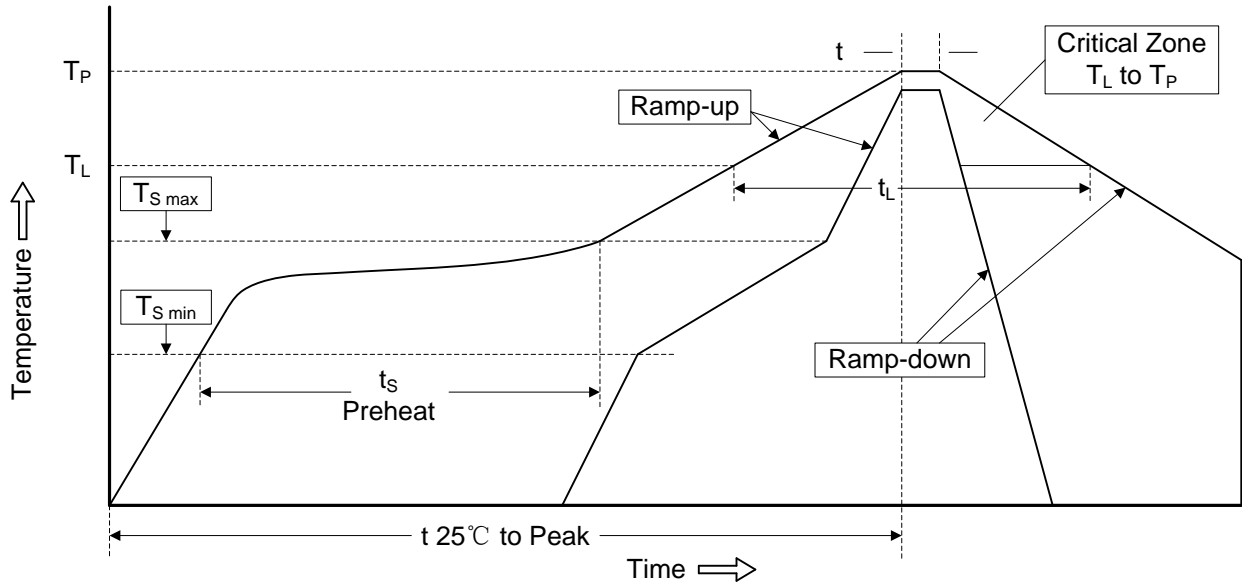


Figure 3. Capacitance vs. Reverse Voltage



Recommended Soldering Conditions

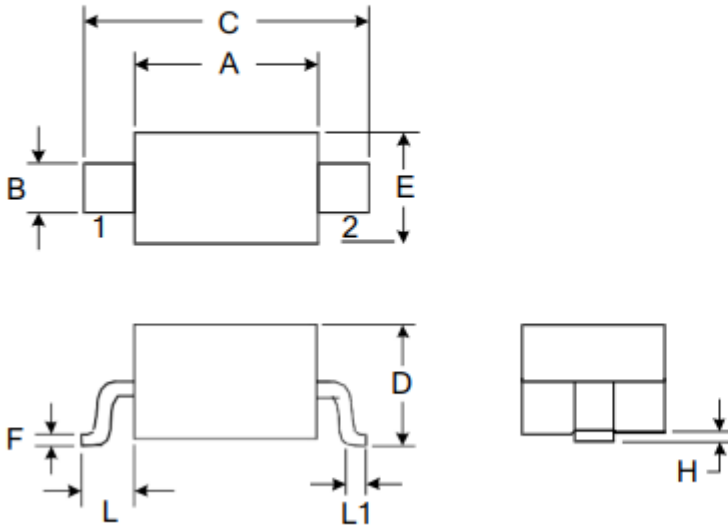
Reflow Soldering



Recommended Condition

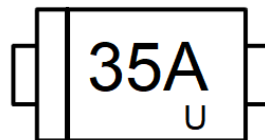
Profile Feature	Pb Free Assembly
Average ramp-up rate (T_L to T_P)	3°C/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (t_s)	150°C 200°C 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	3°C/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	217°C 60-150 seconds
Peak Temperature (T_P)	260°C
Time within 5°C of actual Peak Temperature (t)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

Outline Drawing – SOD323



DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.600	1.800	0.063	0.071
B	0.250	0.350	0.010	0.014
C	2.500	2.700	0.098	0.106
D		1.000		0.039
E	1.200	1.400	0.047	0.055
F	0.080	0.150	0.003	0.006
L	0.475 REF		0.019REF	
L1	0.250	0.400	0.010	0.016
H	0.000	0.100	0.000	0.004

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
UMW SDD32A36L01	SOD-323	3000	Tape and reel