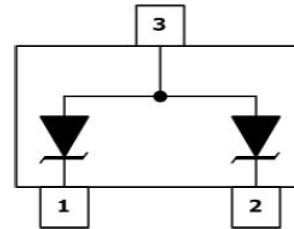


Features

- Unidirectional ESD protection of two lines
- Low diode capacitance: $C_d = 17 \text{ pF}$
- Max. peak pulse power: $P_{PP} = 160 \text{ W}$
- Low clamping voltage: $V_{CL} = 55 \text{ V}$
- Ultra low leakage current: $I_{RM} \leq 1 \text{ }\mu\text{A}$
- ESD protection up to 30 kV
- IEC 61000-4-2; level 4 (ESD)
- IEC 61000-4-5 (surge); $I_{PP} = 2.5 \text{ A}$
- AEC-Q101 qualified



Applications

- Computers and peripherals
- Audio and video equipment
- Cellular handsets and accessories
- Subscriber Identity Module (SIM) card protection
- Portable electronics
- Communication systems
- 10/100 Mbit/s Ethernet

MACHANICAL DATA

- SOT-23 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranteed: 260°C/10S
- MSL 1

Quick reference data

$T_{amb} = 25 \text{ }^\circ\text{C}$ unless otherwise specified.

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|------------------|--------------------------|--|-----|-----|-----|------|
| Per diode | | | | | | |
| V_{RWM} | reverse standoff voltage | | - | - | 36 | V |
| C_d | diode capacitance | $f = 1 \text{ MHz}; V_R = 0 \text{ V}$ | - | 17 | 35 | pF |

Limiting values

In accordance with the Absolute Maximum Rating System (IEC 60134).

| Symbol | Parameter | Conditions | | Min | Max | Unit |
|-------------------|----------------------|--------------------------|--------|-----|------|------|
| Per diode | | | | | | |
| P _{PP} | peak pulse power | t _p = 8/20 μs | [1][2] | - | 160 | W |
| I _{PP} | peak pulse current | t _p = 8/20 μs | [1][2] | - | 2.5 | A |
| Per device | | | | | | |
| T _j | junction temperature | | | - | 150 | °C |
| T _{amb} | ambient temperature | | | -55 | +150 | °C |
| T _{stg} | storage temperature | | | -65 | +150 | °C |

[1] Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC 61000-4-5.

[2] Measured from pin 1 or 2 to pin 3.

ESD maximum ratings

T_{amb} = 25 °C unless otherwise specified.

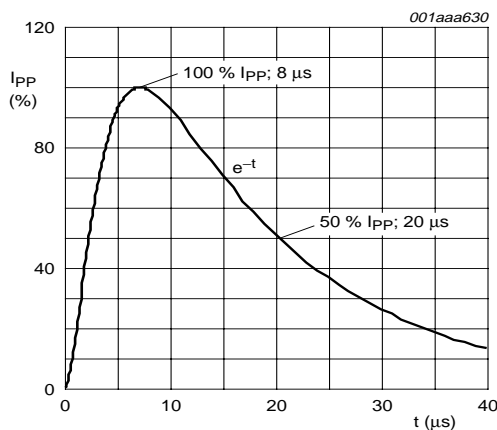
| Symbol | Parameter | Conditions | | Min | Max | Unit |
|------------------|---------------------------------|-----------------------------------|--------|-----|-----|------|
| Per diode | | | | | | |
| V _{ESD} | electrostatic discharge voltage | IEC 61000-4-2 (contact discharge) | [1][2] | - | 30 | kV |
| | | machine model | [2] | - | 400 | V |
| | | MIL-STD-883 (human body model) | | - | 8 | kV |

[1] Device stressed with ten non-repetitive ESD pulses.

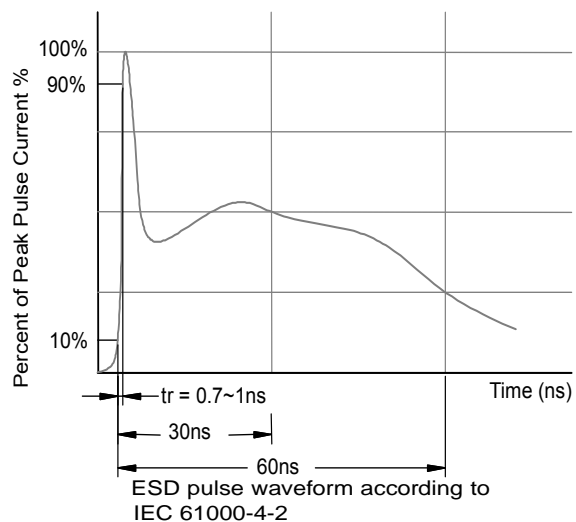
[2] Measured from pin 1 to pin 2.

ESD standards compliance

| Standard | Conditions |
|---|---------------------------------|
| Per diode | |
| IEC 61000-4-2; level 4 (ESD) | > 15 kV (air); > 8 kV (contact) |
| MIL-STD-883; class 3 (human body model) | > 4 kV |



8/20 μs pulse waveform according to IEC 61000-4-5



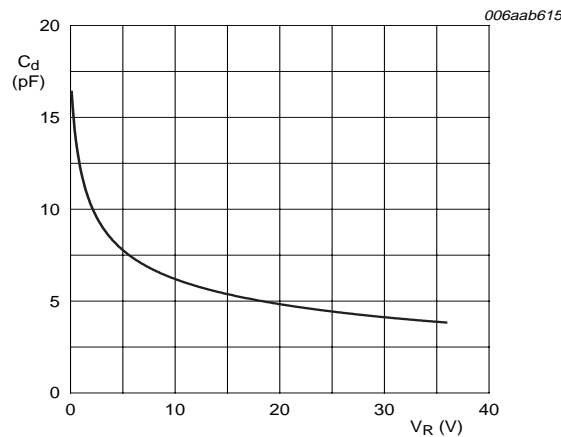
Characteristics

T_{amb} = 25 °C unless otherwise specified.

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|------------------|--------------------------|------------------------------------|--------|--------|-----|------|
| Per diode | | | | | | |
| V _{RWM} | reverse standoff voltage | | - | - | 36 | V |
| I _{RM} | reverse leakage current | V _{RWM} = 30 V | - | < 0.02 | 1 | μA |
| V _{BR} | breakdown voltage | I _R = 5 mA | 40 | 44 | - | V |
| C _d | diode capacitance | f = 1 MHz; V _R = 0 V | [1] | 17 | 35 | pF |
| V _{CL} | clamping voltage | I _{PP} = 1 A | [1][2] | 55 | 60 | V |
| r _{dif} | differential resistance | I _R = 0.5 mA | - | - | 300 | Ω |

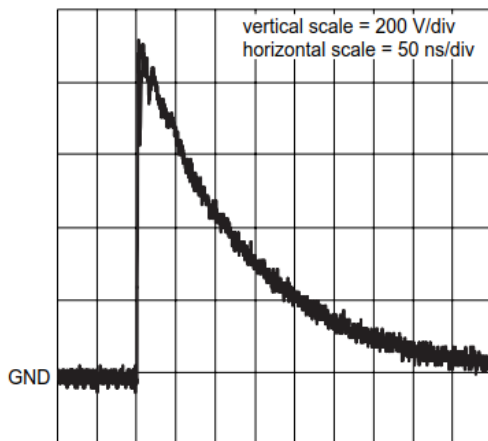
[1] Measured from pin 1 or 2 to pin 3.

[2] Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC 61000-4-5.

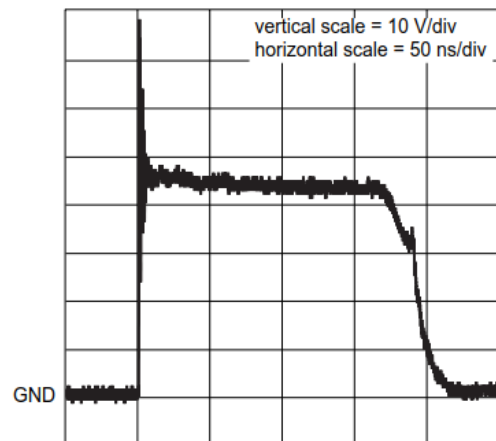


f = 1 MHz; T_{amb} = 25 °C

Diode capacitance as a function of reverse voltage; typical values

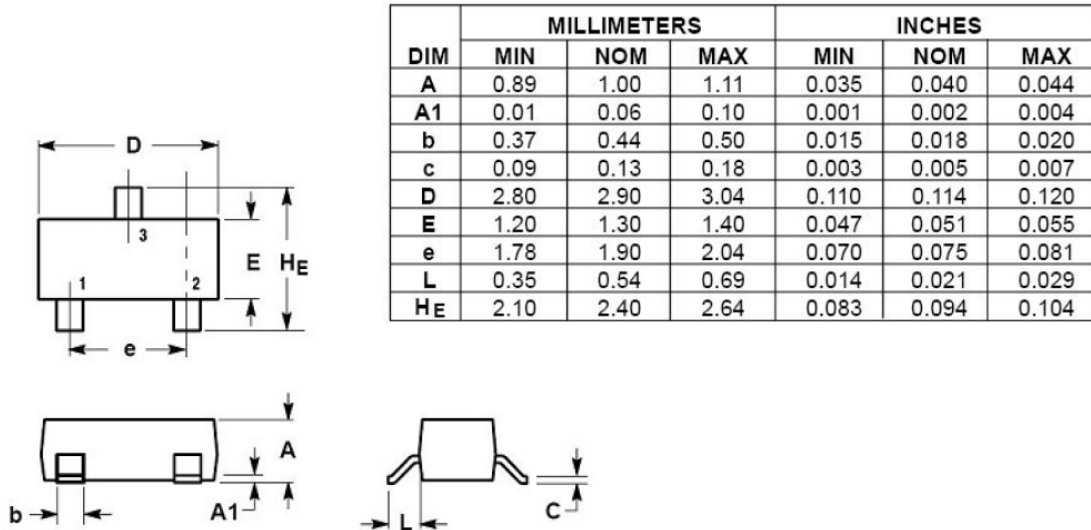


unclamped +1 kV ESD voltage waveform
(IEC61000-4-2 network)

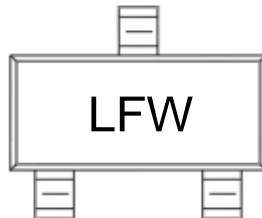


clamped +1 kV ESD voltage waveform
(IEC61000-4-2 network)

SOT-23 PACKAGE OUTLINE DIMENSIONS



Marking



Ordering information

| Order code | Package | Baseqty | Deliverymode |
|-----------------|---------|---------|---------------|
| UMW PESD36VS2UT | SOT-23 | 3000 | Tape and reel |

单击下面可查看定价，库存，交付和生命周期等信息

[>>UMW\(友台半导体\)](#)