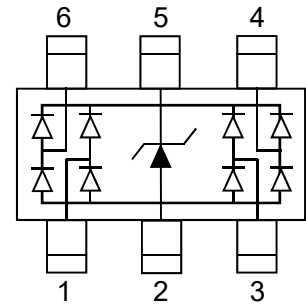


Description

The PESDAWC236T5VU is low capacitance transient voltage suppressor array for high speed data interface that designed to protect sensitive electronics from damage or latch-up due to ESD lightning, and other voltage induced transient events.



Feature

- 150W peak pulse power (tP = 8/20μs)
- Working voltage: 5.0V
- Low clamping voltage
- Low capacitance
- RoHS Compliant Transient Protection for High Speed Data Lines to IEC61000-4-2(ESD)±15kV(air),±8kV(contact)

Applications

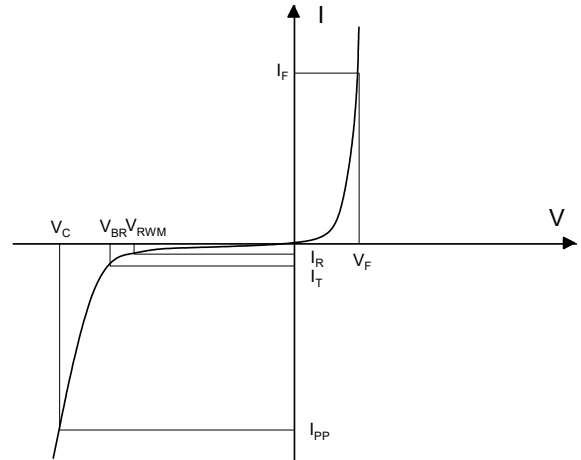
- USB 2.0 Power & Data Line Protection
- DVI & HDMI Port Protection
- Serial ATA Port Protection
- Mobile Handsets
- Digital Cameras and camcorders
- PDA & MP3 Players
- Digital TV and Set-top Boxes
- Other Portable Electronic Components

Mechanical Characteristics

- Lead finish:100% matte Sn(Tin) Mounting
- position: Any
- Qualified max reflow temperature:260°C
- Device meets MSL 1 requirements Pure
- tin plating: 7 ~ 17 um
- Pin flatness:≤3mil

Electronics Parameter

Symbol	Parameter
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
P_{PP}	Peak Pulse Power
C_J	Junction Capacitance
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical characteristics per line@25°C (unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	V_{RWM}				5.0	V
Breakdown Voltage	V_{BR}	$I_t = 1\text{mA}$	6.0		8.5	V
Reverse Leakage Current	I_R	$V_{RWM} = 5\text{V}$			1.0	μA
Clamping Voltage ¹⁾	V_C	TLP = 16A, $t_p = 100\text{ns}$		17.5		V
Dynamic resistance ¹⁾	R_{DYN}			0.6		Ω
Clamping Voltage ²⁾	V_C	$I_{PP} = 1\text{A}, t_p = 8/20\mu\text{s}$			11.0	V
		$I_{PP} = 5\text{A}, t_p = 8/20\mu\text{s}$			15.0	V
Capacitance Between IO and GND	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$		0.75		pF
Capacitance Between IO and I/O	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$		0.4		pF

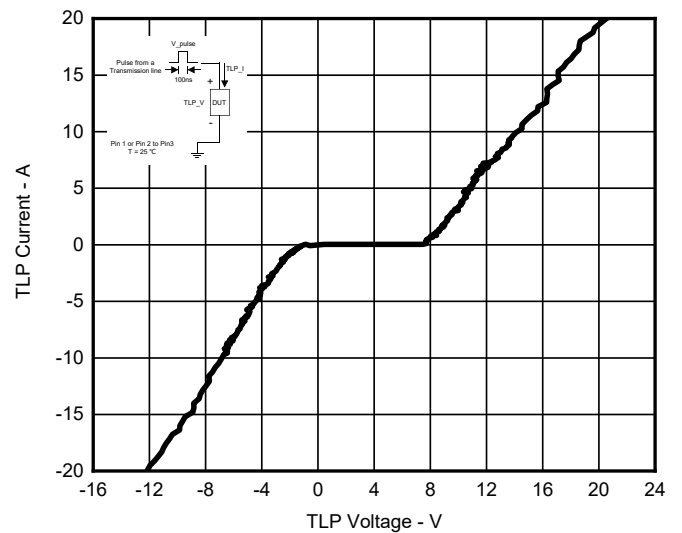
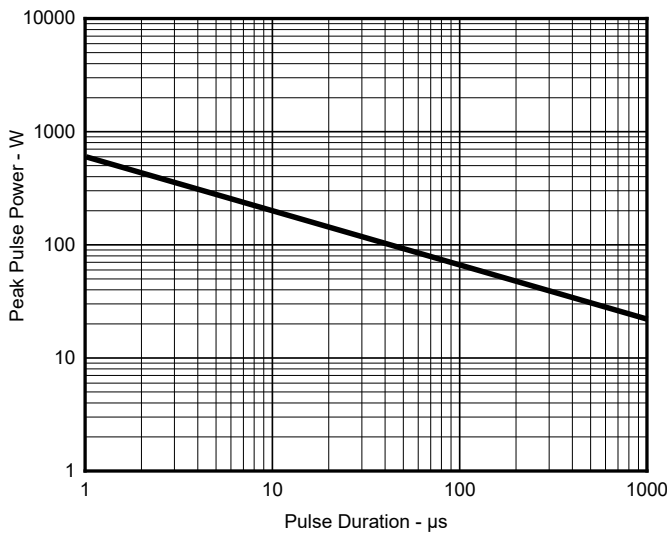
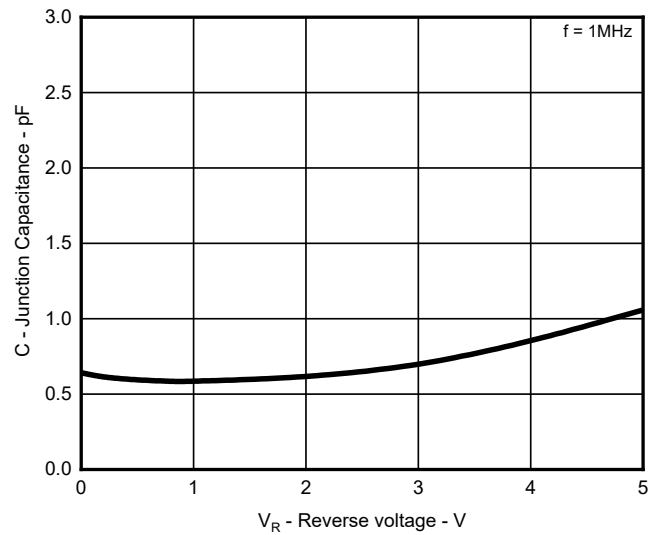
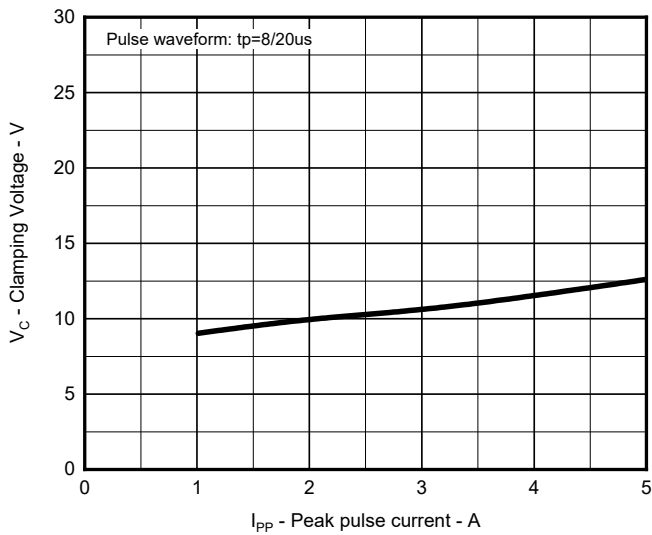
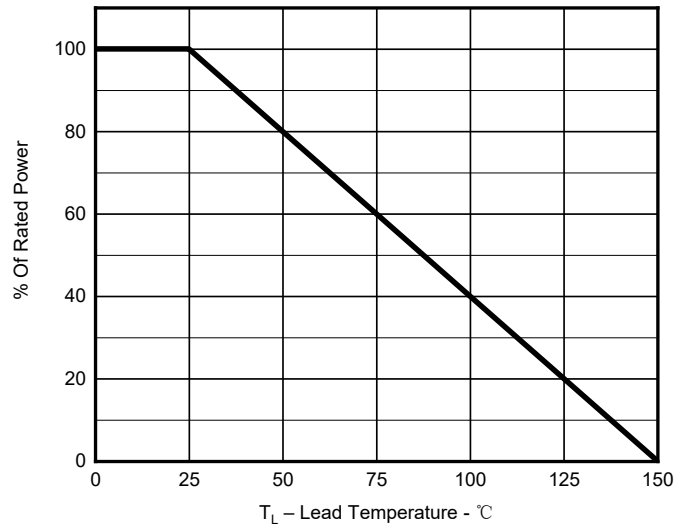
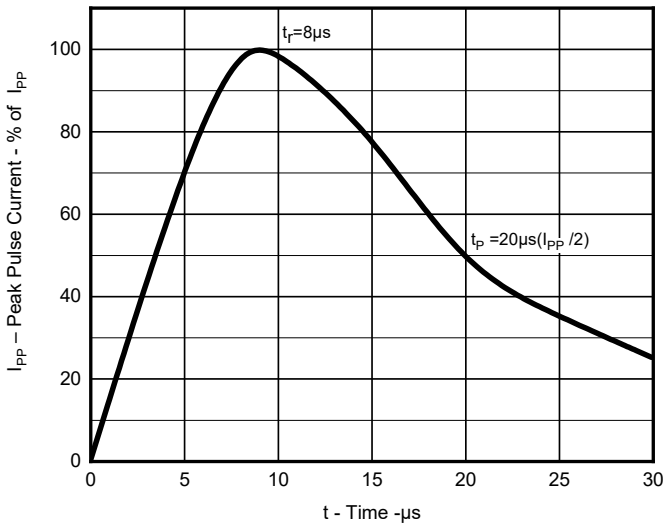
Notes:

1. TLP parameter: $Z_0=50\Omega$, $t_p=100\text{ns}$, $t_r=2\text{ns}$, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.
2. Non-repetitive current pulse, according to IEC61000-4-5.

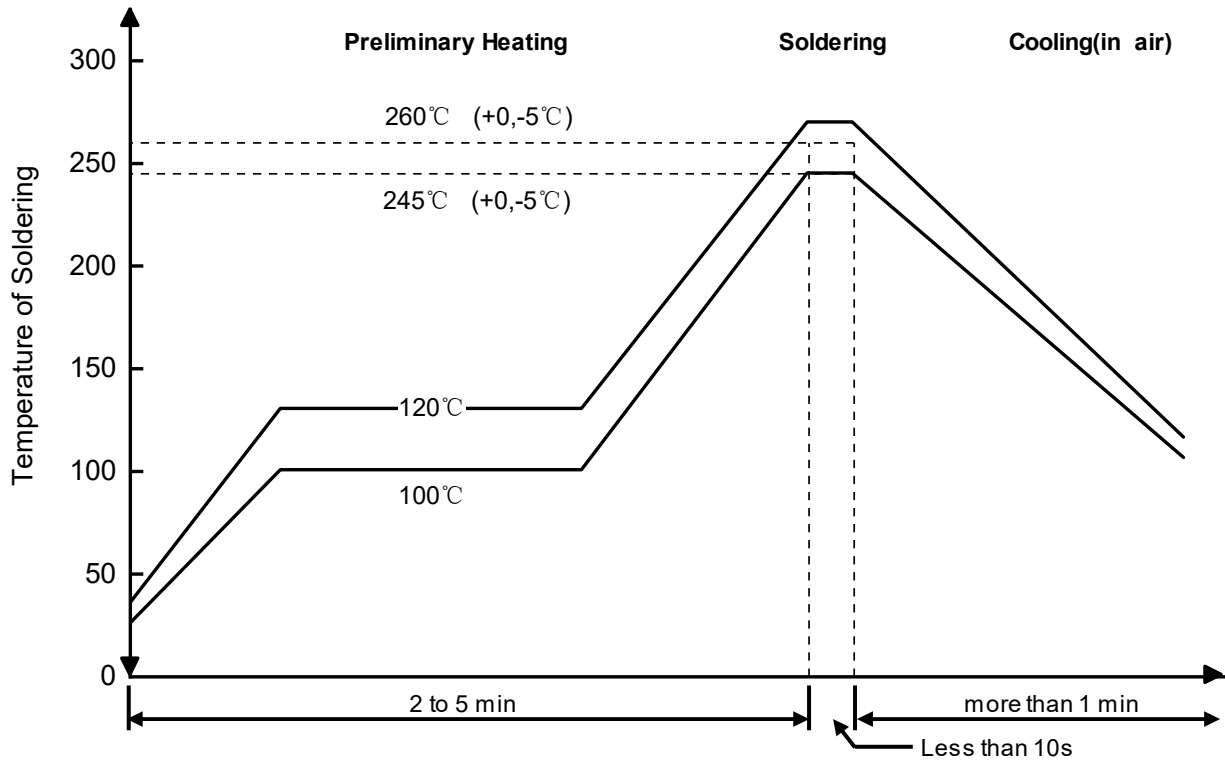
Absolute maximum rating@25°C

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu\text{s}$)	P_{PP}	150	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$)	I_{PP}	5	A
Lead Soldering Temperature	T_L	260 (10 sec)	°C
Junction and Storage Temperature Range	T_J, T_{STG}	-55~+150	°C
ESD Protection-Contact Discharge	V_{ESD}	± 8	kV
ESD Protection-Air Discharge	V_{ESD}	± 15	kV

Typical Characteristics



Solder Reflow Recommendation



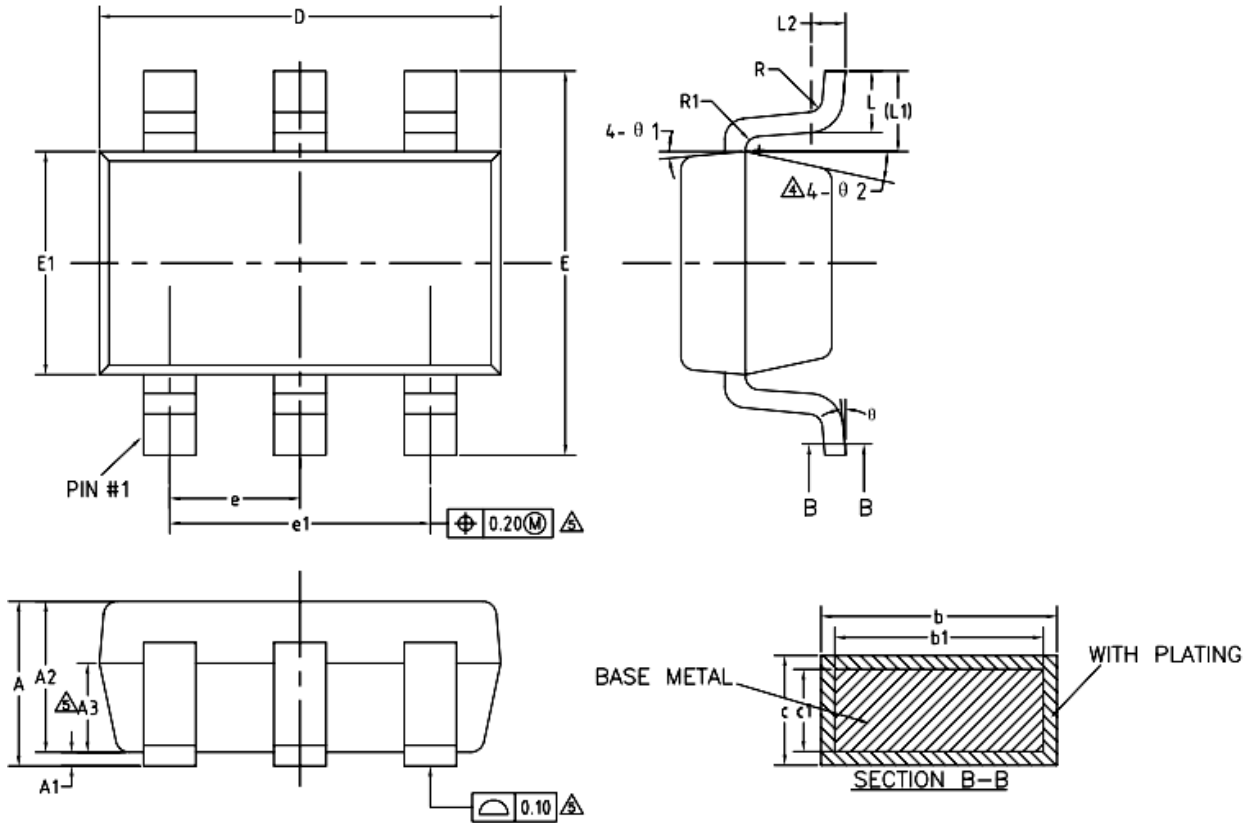
Remark: Pb free for 260°C; Pb for 245°C.

PCB Design

For TVS diodes a low-ohmic and low-inductive path to chassis earth is absolutely mandatory in order to achieve good ESD protection. Novices in the area of ESD protection should take following suggestions to heart:

- Do not use stubs, but place the cathode of the TVS diode directly on the signal trace.
- Do not make false economies and save copper for the ground connection.
- Place via holes to ground as close as possible to the anode of the TVS diode.
- Use as many via holes as possible for the ground connection.
- Keep the length of via holes in mind! The longer the more inductance they will have.

SOT23-6



COMMON DIMENSIONS
(UNITS OF MEASURE=MILLIMETER)

SYMBOL	MIN	NOM	MAX
A	—	—	1.25
A1	0	—	0.15
A2	1.00	1.10	1.20
A3	0.60	0.65	0.70
b	0.36	—	0.50
b1	0.36	0.38	0.45
c	0.14	—	0.20
c1	0.14	0.15	0.16
D	2.826	2.926	3.026
E	2.60	2.80	3.00
E1	1.526	1.626	1.726
e	0.90	0.95	1.00
e1	1.80	1.90	2.00
L	0.35	0.45	0.60
L1	0.59REF		
L2	0.25BSC		
R	0.10	—	—
R1	0.10	—	0.20
θ	0°	—	8°
θ 1	3°	5°	7°
θ 2	6°	—	14°

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
UMW PESDAWC236T5VU	SOT23-6	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\(友台半导体\)](#)