

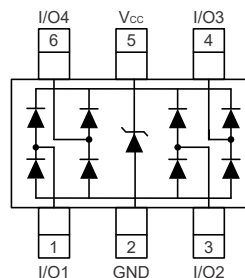
1.Features

- 60Wattspeakpulsepower($t_p = 8/20\mu s$)
- Low clampingvoltage
- Low leakagecurrent
- Low capacitance($C_j=0.2pF$ typ. IO to IO)
- Protectiononedata/powerline to:
- IEC 61000-4-2 $\pm 12kV$ contact $\pm 15kV$ air
- IEC 61000-4-4(EFT) 40A(5/50ns)
- IEC 61000-4-5(Lightning)3.5A (8/20 μs)

2.Applications

- Ethernet
- Digital Visual Interface (DVI)
- USB 2.0
- Notebook and PC Computers

3.Pinning information



SOT23-6

4.Absolute Maximum Ratings $T_A = 25^\circ C$

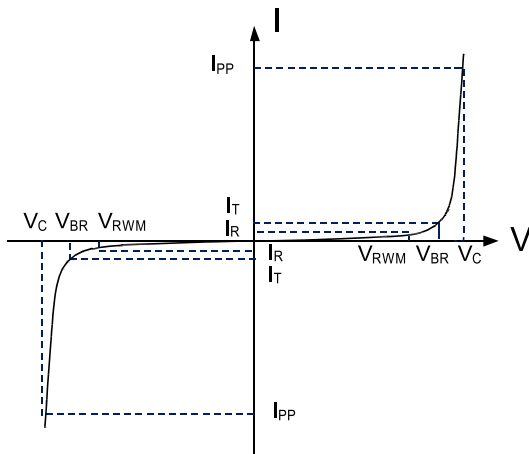
Parameter	Symbol	Maximum	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{pp}	60	Watts
Peak Pulse Current ($t_p=8/20\mu s$)(note1)	I_{pp}	3.5	A
ESD per IEC 61000-4-2(Air)	V_{ESD}	15	kV
ESD per IEC 61000-4-2(Contact)		12	kV
Lead Soldering Temperature	T_L	260(10seconds)	$^\circ C$
Junction Temperature	T_J	-55 to 125	$^\circ C$
Storage Temperature	T_{STG}	-55 to 125	$^\circ C$



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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Stand-Off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	6	7.8	8.5	V
Reverse Leakage Current	I_R	$V_{RWM}=5\text{V}$, $T=25^\circ\text{C}$		50	500	nA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu\text{s}$			3.5	A
Clamping Voltage	V_C	$I_{PP}=3.5\text{A}$, $t_p=8/20\mu\text{s}$		10	13	V
Junction capacitance	C_J	$V_R=0\text{V}$, $f=1\text{MHz}$, IO to IO		0.2	0.25	pF
		$V_R=0\text{V}$, $f=1\text{MHz}$, IO to GND		0.36	0.5	pF

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



Notes: 8/20 μs pulse waveform.

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



7. Typical characteristic

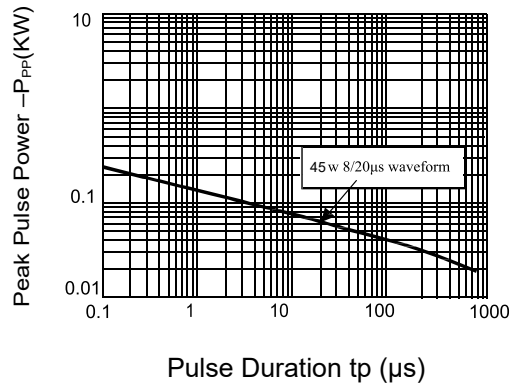


Figure 1: Peak Pulse Power Rating Curve

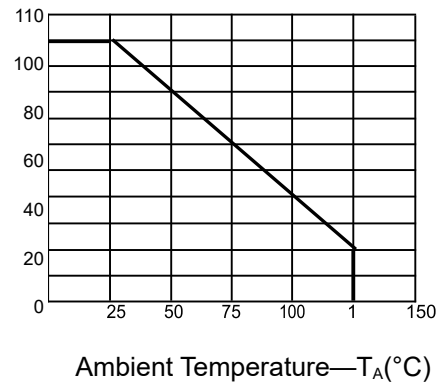


Figure 2: Pulse Derating Curve

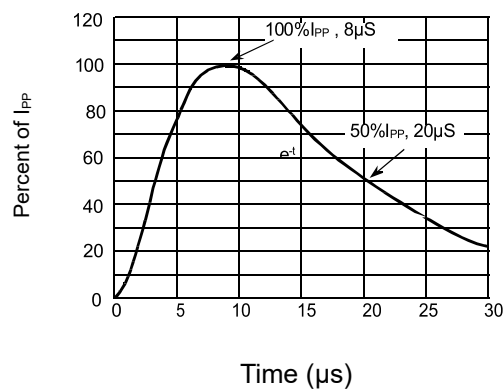


Figure 3: Pulse Wave form-8/20μs

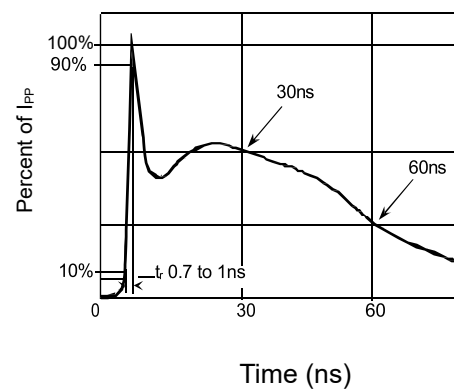


Figure 4: Pulse Wave form-ESD(IEC61000-4-2)

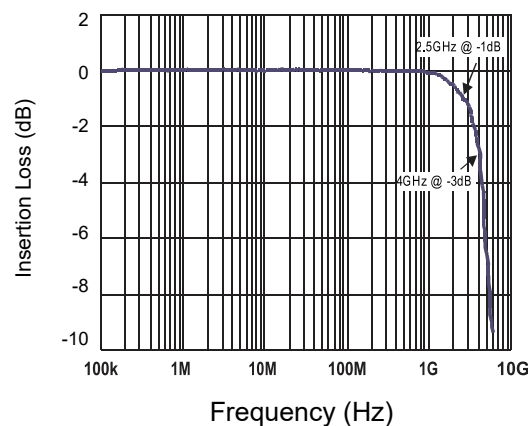
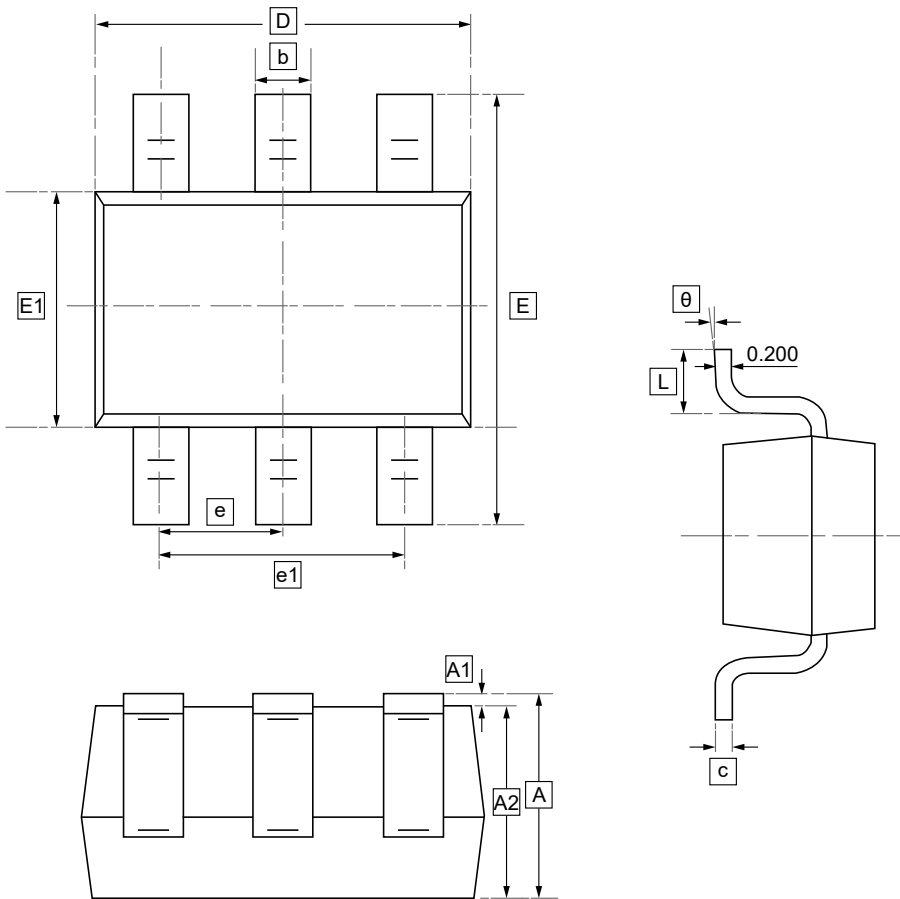


Figure 5: Insertion Loss S21 -I/O to GND



8.SOT-23-6 Package Outline Dimensions

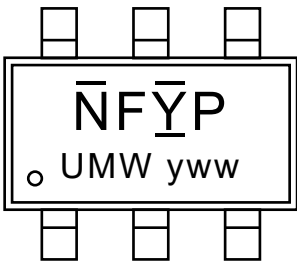


DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	b	c	D	E1	E	e	e1	L	θ
Min	1.050	0.000	1.050	0.300	0.100	2.820	1.500	2.650	0.950	1.800	0.300	0°
Max	1.250	0.100	1.150	0.500	0.200	3.020	1.700	2.950	BSC	2.000	0.600	8°



9.Ordering information



yww: Batch Code

Order Code	Package	Base QTY	Delivery Mode
UMW TPD4E001DBVR	SOT23-6	3000	Tape and reel



10.Disclaimer

UMW reserves the right to make changes to all products, specifications. Customers should obtain the latest version of product documentation and verify the completeness and currency of the information before placing an order.

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