

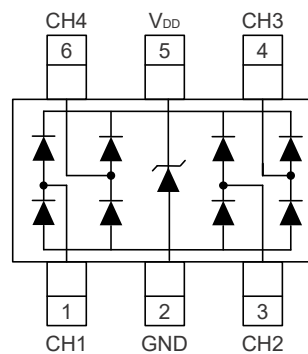
1.Features

- IEC 61000-4-2 (ESD): Air – $\pm 15\text{kV}$, Contact – $\pm 8\text{kV}$
- 4 Channels of ESD protection
- Low Channel Input Capacitance of 0.5pF Typical
- IEEE1394, Serial ATA, DVI, HDMI, PCI
- Typically Used at High Speed Ports such as USB 2.0, USB3.0,

2.Mechanical Data

- Case Material: Molded Plastic, “Green” Molding Compound.
- Weight: 0.016 grams (approximate)
- Terminals: Matte Tin Finish annealed over Copper leadframe

3.Pinning information



SOT23-6

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

Parameter	Symbol	Value	Units	Conditions
Peak Pulse Current	I_{pp}	3	A	8/20 μs , Per Figure 3
ESD Protection – Contact Discharge	$V_{\text{ESD_Contact}}$	± 8	kV	Standard IEC 61000-4-2
ESD Protection – Air Discharge	$V_{\text{ESD_Air}}$	± 15	kV	Standard IEC 61000-4-2



5. Thermal resistance rating

Parameter	Symbol	Value	Units
Power Dissipation (Note 5)	P_D	300	mW
Thermal Resistance, Junction to Ambient (Note 5)	$R_{\theta JA}$	417	°C/W
Storage Temperature Range	T_J, T_{STJ}	-65 to 150	°C



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

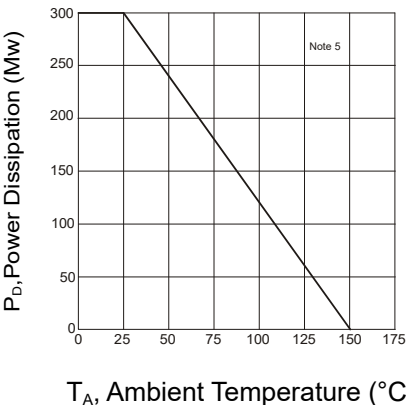
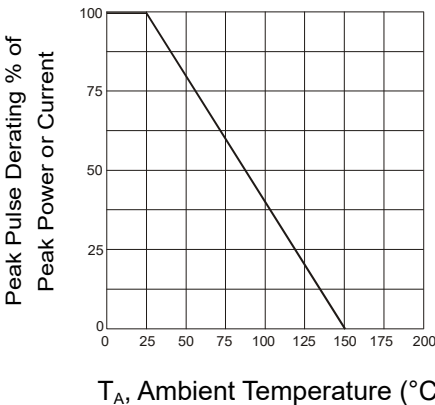
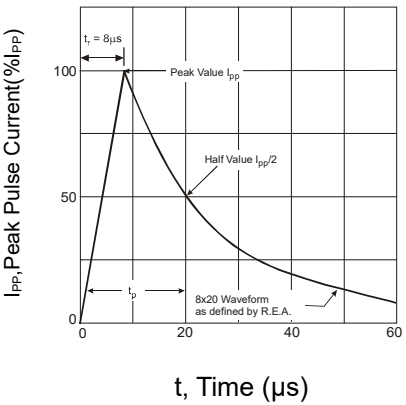
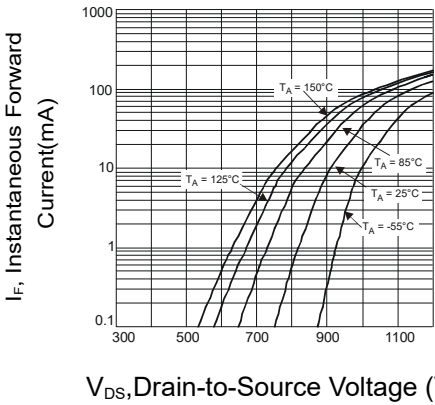
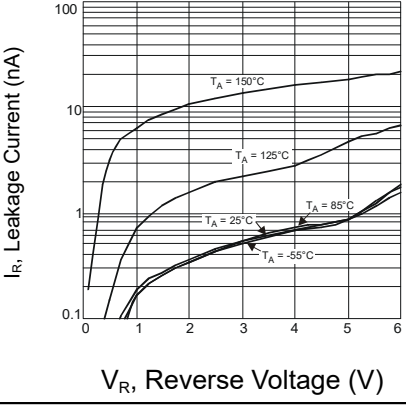
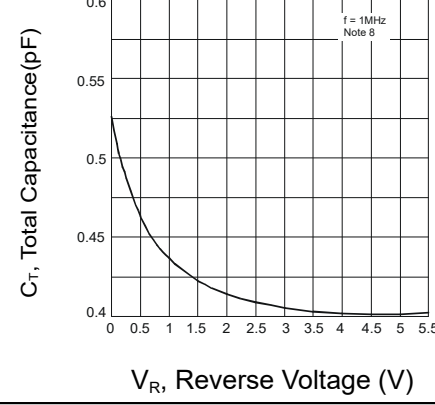
Parameter	Symbol	Conditions	Min	Typ	Max	Units
Reverse Working Voltage	V_{RWM}				5.5	V
Reverse Current (Note 6)	I_R	$V_R=5.5\text{V}$			200	nA
Reverse Breakdown Voltage	V_{BR}	$I_R=1\text{mA}$	6			V
Reverse Clamping Voltage, Positive	V_{CL}	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$		10	12	V
Transients (Note 7) Dynamic Resistance	R_{DYN}	$I_R=1\text{A}$, $t_p=8/20\mu\text{s}$		1		Ω
Junction capacitance	C_T	$V_R=2.5\text{V}$, $f=1\text{MHz}$		0.4	0.65	pF
		$V_R=0\text{V}$, $f=1\text{MHz}$		0.5		pF

Notes

- 1: Device mounted on FR-4 PCB pad layout (2oz copper) as shown on Diodes, Inc. suggested pad layout AP02001, which can be found on our website at.
- 2: Short duration pulse test used to minimize self-heating effect.
- 3: Clamping voltage value is based on an $8\times 20\mu\text{s}$ peak pulse current (IPP) waveform.
- 4: Measured from any CH to GND.

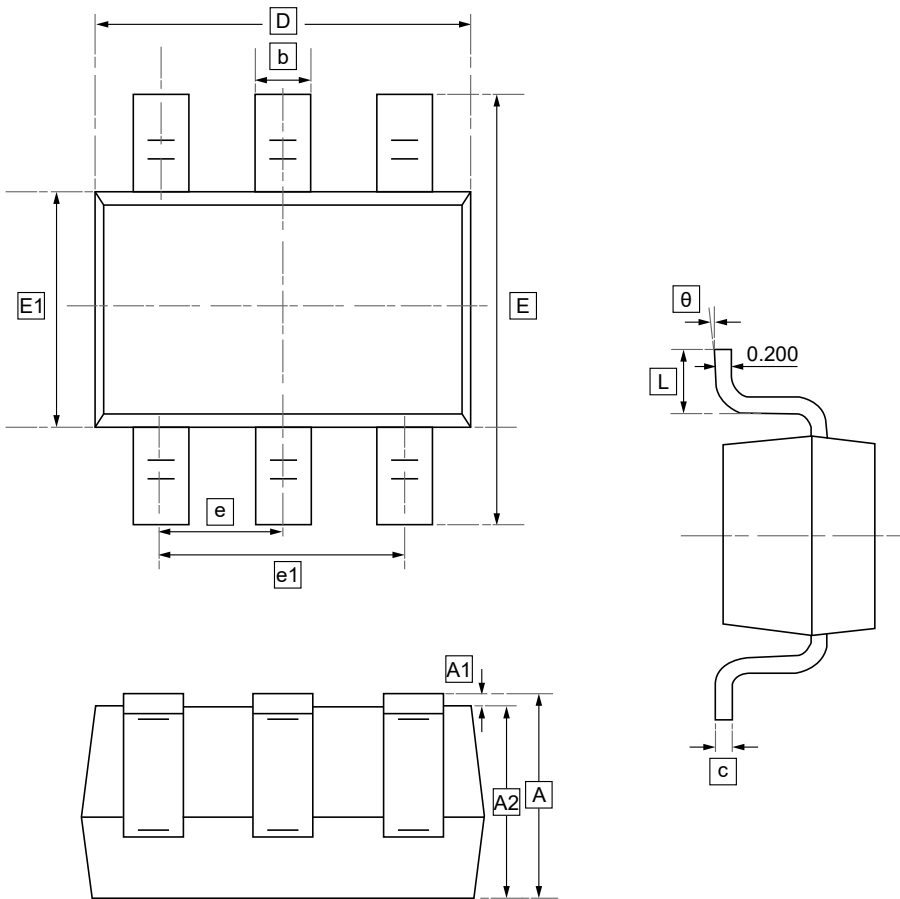


7. Typical characteristic

	
Figure 1: Power Derating Curve	Figure 2: Pulse Derating Curve
	
Figure 3: Pulse Waveform	Figure 4: Capacitance
	
Figure 5: Typical Reverse Characteristics	Figure 6: Total Capacitance vs. Reverse Voltage



8.SOT-23-6 Package Outline Dimensions

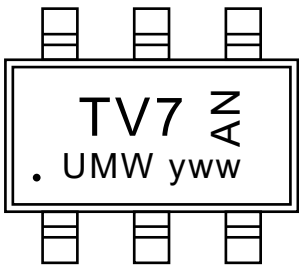


DIMENSIONS (mm are the original dimensions)

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 D5V0F4U6SO-7	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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