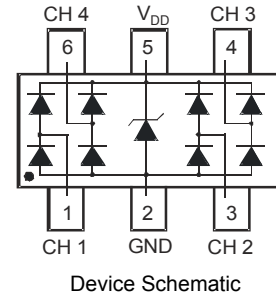


Features

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



Mechanical Data

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

Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit	Conditions
Peak Pulse Current	I _{PP}	3.0	A	8/20μs, Per Figure 3
ESD Protection – Contact Discharge	V _{ESD_Contact}	±8	kV	Standard IEC 61000-4-2
ESD Protection – Air Discharge	V _{ESD_Air}	±15	kV	Standard IEC 61000-4-2

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	P _D	300	mW
Thermal Resistance, Junction to Ambient (Note 5)	R _{θJA}	417	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Reverse Working Voltage	V _{RWM}	—	—	5.5	V	—
Reverse Current (Note 6)	I _R	—	—	200	nA	V _R = 5.5V
Reverse Breakdown Voltage	V _{BR}	6.0	—	—	V	I _R = 1mA
Reverse Clamping Voltage, Positive Transients (Note 7)	V _{CL}	—	10	12	V	I _{PP} = 1A, t _p = 8/20μs
Dynamic Resistance	R _{DYN}	—	1.0	—	Ω	I _R = 1A, t _p = 8/20μs
Capacitance (Note 8)	C _T	—	0.4	0.65	pF	V _R = 2.5V, f = 1MHz
		—	0.5	—	pF	V _R = 0V, f = 1MHz

- 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 8x20μs peak pulse current (I_{PP}) waveform.
 4. Measured from any CH to GND.

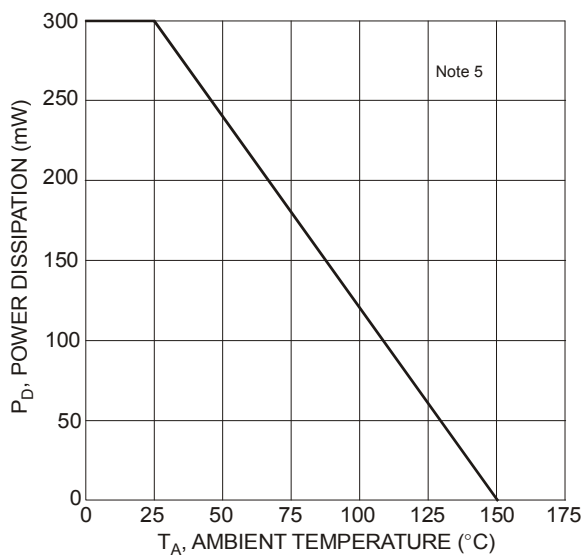


Figure 1 Power Derating Curve

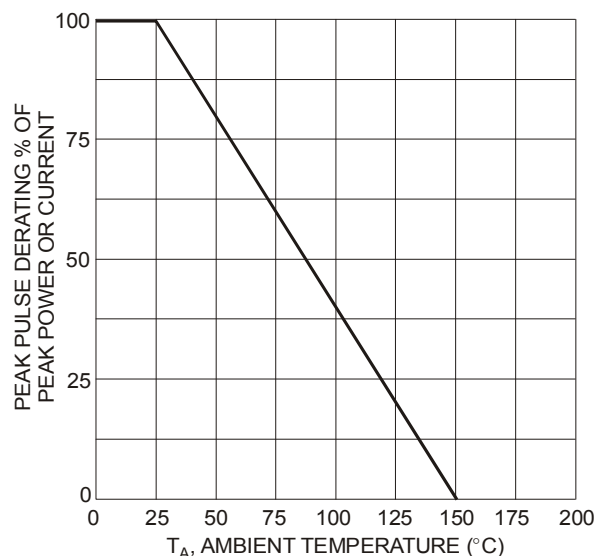
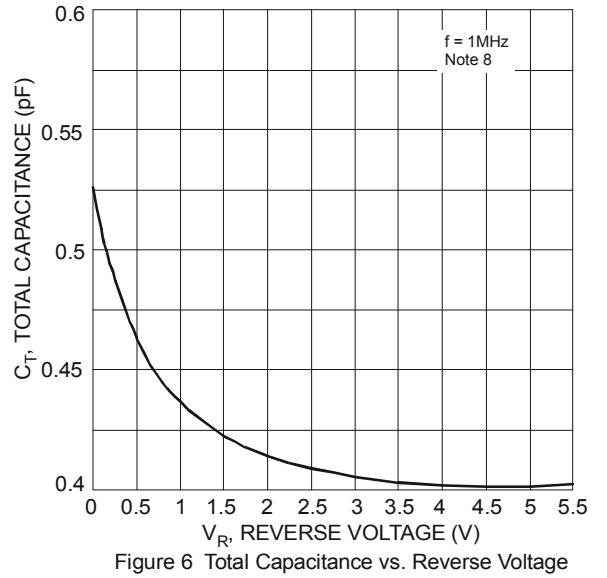
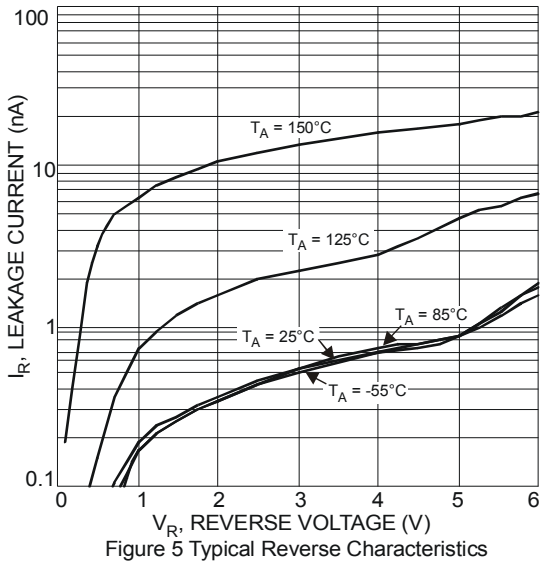
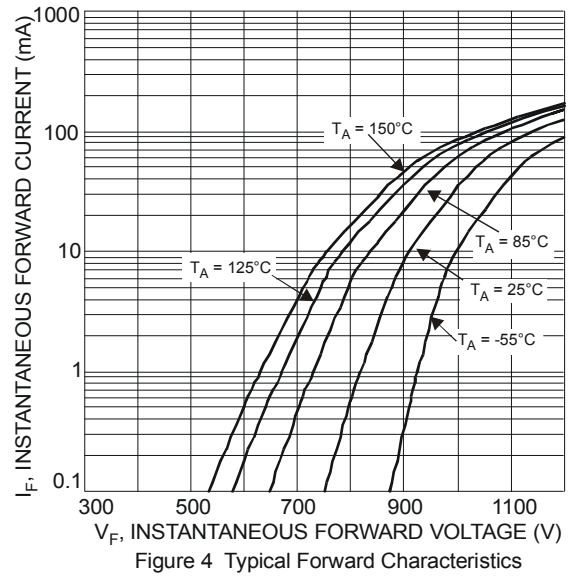
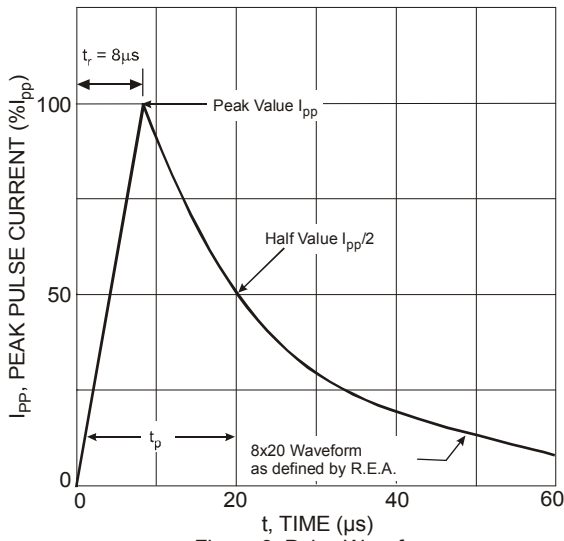
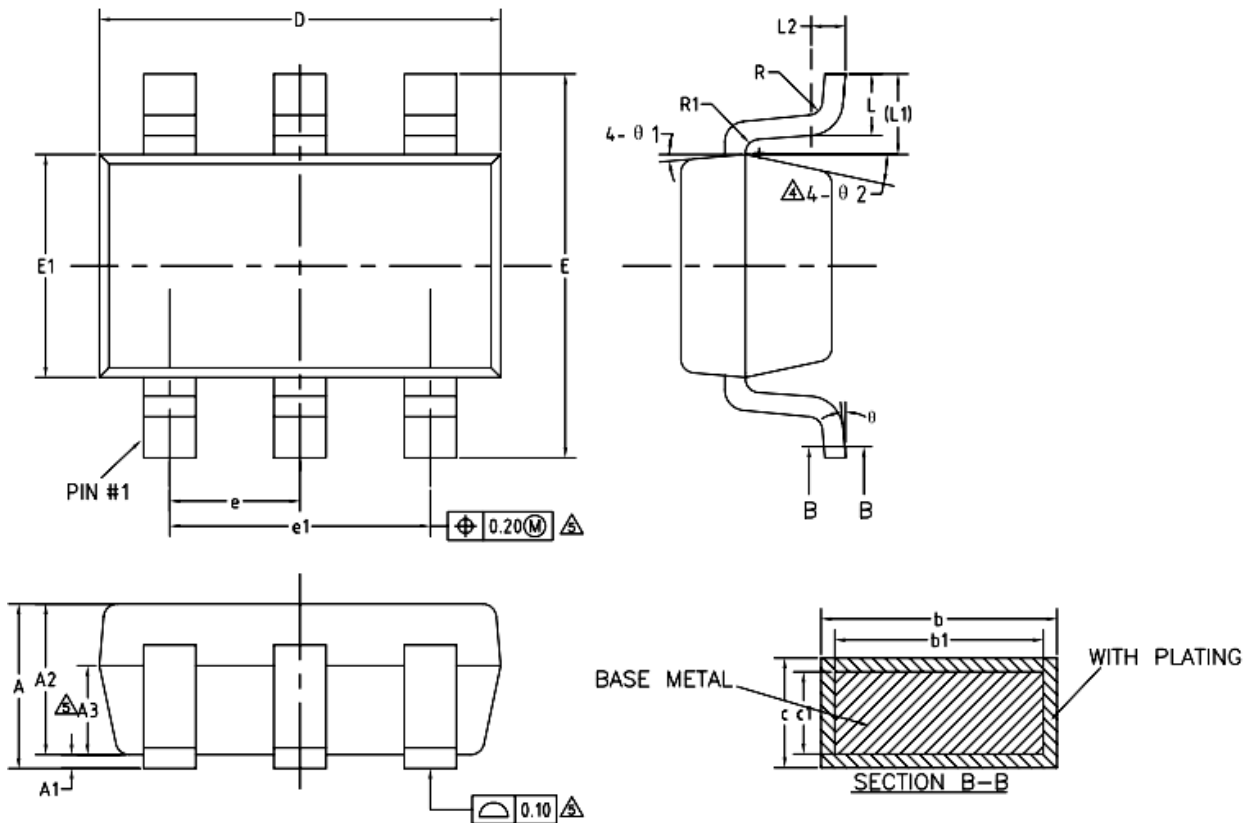


Figure 2 Pulse Derating Curve



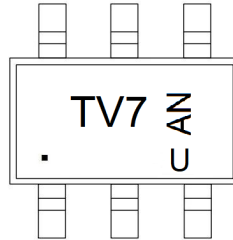
SOT23-6



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
Δ e	0.90	0.95	1.00
Δ e1	1.80	1.90	2.00
L	0.35	0.45	0.60
L1	0.59REF		
L2	0.25BSC		
Δ R	0.10	-	-
Δ R1	0.10	-	0.20
θ	0° - 8°		
θ_1	3°	5°	7°
Δ θ_2	6°	-	14°

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
UMW D5V0F4U6SO-7	SOT23-6	3000	Tape and reel