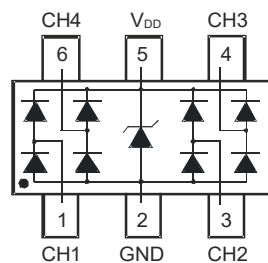


## 1.Features

- IEC 61000-4-2 (ESD): Air  $\pm 15\text{kV}$ ,  
Contact  $\pm 8\text{kV}$
- Low Channel Input Capacitance of  
0.6pF Typical
- 4 Channels of ESD Protection
- Typically Used at High Speed Ports such as  
USB 2.0, USB3.0, IEEE1394, Serial ATA, DVI,  
HDMI, PCI

## 2.Pinning information



**SOT-363**

## 3.Maximum Ratings ( $T_A=25^\circ\text{C}$ , unless otherwise specified.)

| Parameter                          | Symbol             | Conditions                    | Value    | Units |
|------------------------------------|--------------------|-------------------------------|----------|-------|
| Peak Pulse Current                 | $I_{PP}$           | 8/20 $\mu\text{s}$ , Figure 3 | 5        | A     |
| ESD Protection – Contact Discharge | $V_{ESD\_Contact}$ | Standard IEC 61000-4-2        | $\pm 8$  | kV    |
| ESD Protection – Air Discharge     | $V_{ESD\_Air}$     | Standard IEC 61000-4-2        | $\pm 15$ | kV    |

## 4.Thermal Characteristics

| Parameter                                        | Symbol          | Value      | Units              |
|--------------------------------------------------|-----------------|------------|--------------------|
| Power Dissipation (Note 5)                       | $P_D$           | 200        | mW                 |
| Thermal Resistance, Junction to Ambient (Note 5) | $R_{\theta JA}$ | 625        | $^\circ\text{C/W}$ |
| Junction and Storage Temperature Range           | $T_J, T_{STG}$  | -65 to 150 | $^\circ\text{C}$   |



## 5. Electrical Characteristics

| Parameter                           | Symbol          | Conditions                      | Min | Typ | Max | Units    |
|-------------------------------------|-----------------|---------------------------------|-----|-----|-----|----------|
| Reverse Standoff Voltage            | $V_{RWM}$       |                                 |     |     | 5.5 | V        |
| Channel Leakage Current (Note 6, 7) | $I_R$           | $V_R=3V$                        |     | 1   | 100 | nA       |
| Reverse breakdown voltage           | $V_{BR}$        | $I_R=1mA$ , from pin 5 to pin 2 | 6   |     | 9   | V        |
| Forward Voltage                     | $V_F$           | $I_F=8mA$                       |     | 0.8 |     | V        |
| Dynamic Resistance                  | $R_{DYN}$       | $I_{PP}=1A$ , $t_p=8/20\mu s$   |     | 0.9 |     | $\Omega$ |
| I/O to GND Capacitance              | $C_{(I/O-GND)}$ | $V_{(I/O-GND)}=0V$ , $f=1MHz$   |     | 1   | 1.5 | pF       |
| I/O to I/O Capacitance              | $C_{(I/O-I/O)}$ | $V_{(I/O-I/O)}=0V$ , $f=1MHz$   |     | 0.6 |     | pF       |

Notes:

1. Short duration pulse test used to minimize self-heating effect.
2. Measured from pin 1, 3, 4, 5 and 6 to GND.



## 6. Typical characteristic

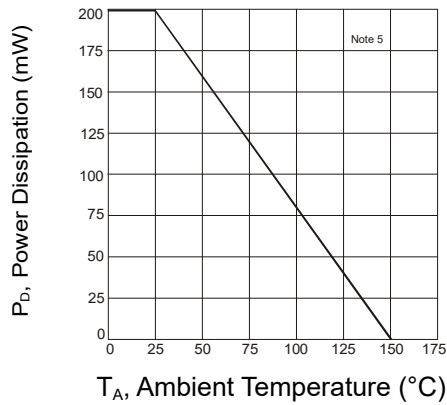


Figure 1: Power Derating Curve

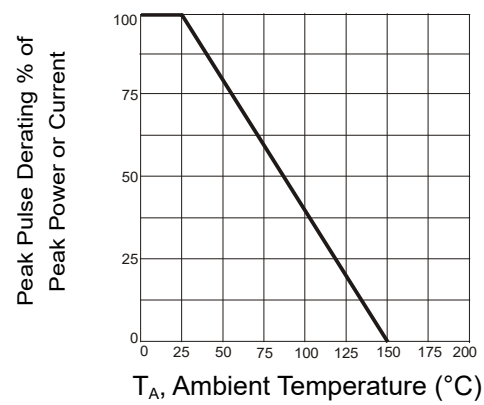


Figure 2: Pulse Derating Curve

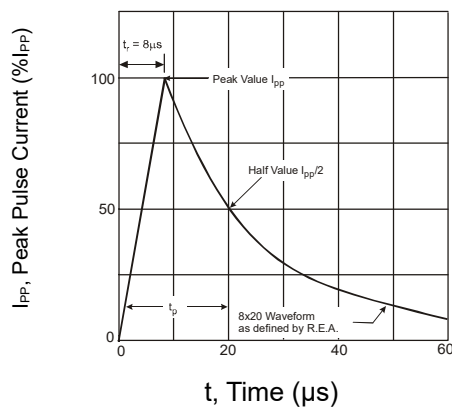


Figure 3: Pulse Waveform

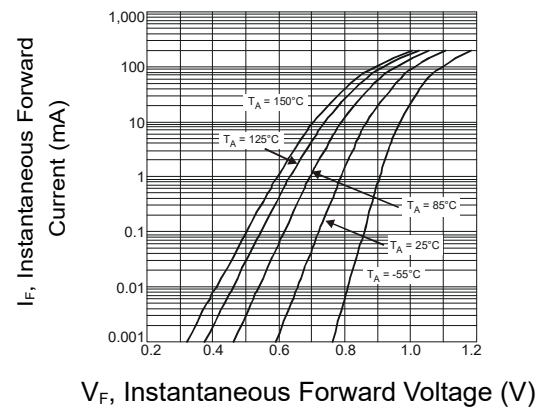


Figure 4: Typical Forward Characteristics

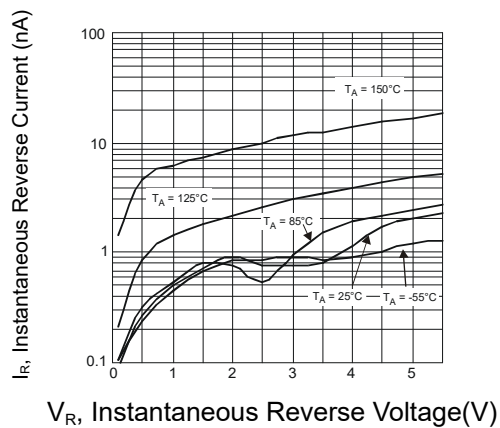


Figure 5: Typical Reverse Characteristics

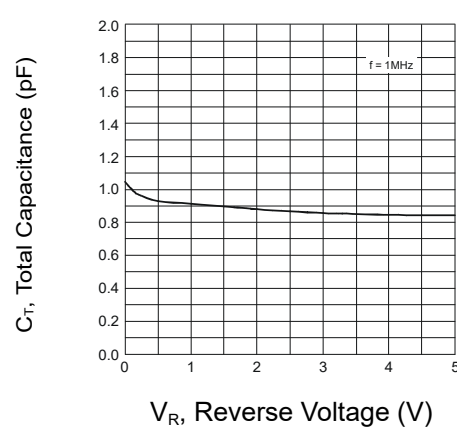
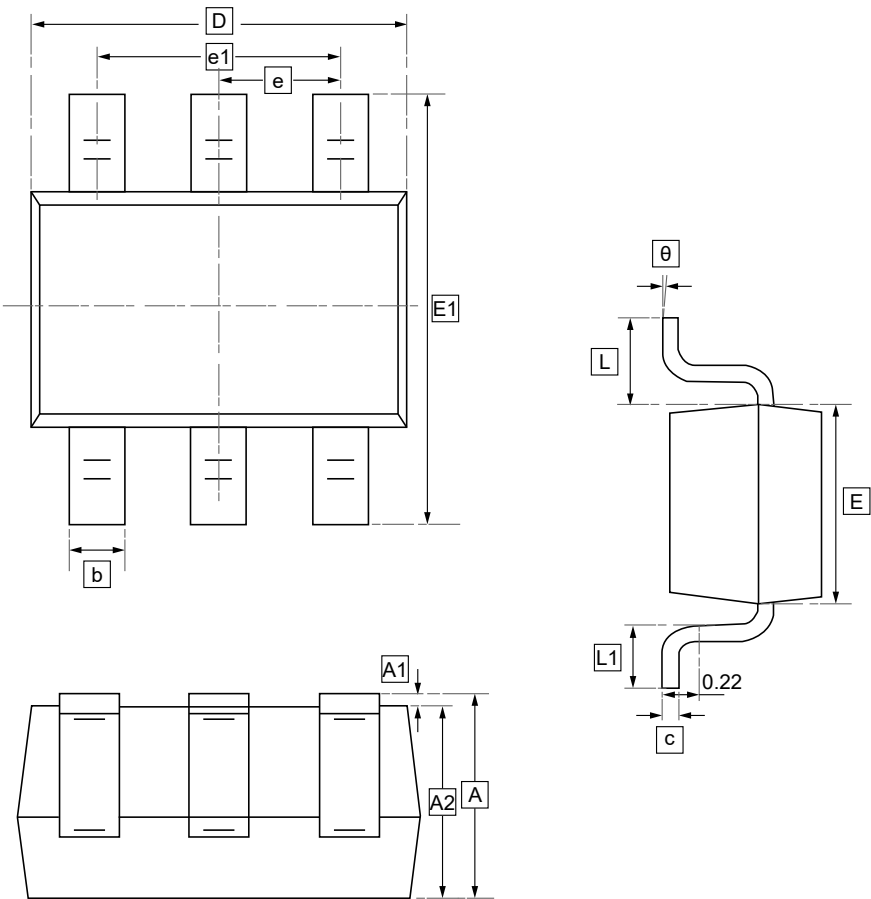


Figure 6: Typical Total Capacitance vs. Reverse Voltage



9.SOT-363 Package Outline Dimensions



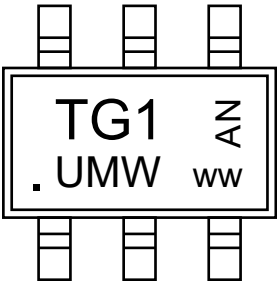
DIMENSIONS (mm are the original dimensions)

| Symbol | A     | A1    | A2    | b     | c     | D     | E     | E1    | e    | e1    | L     | L1    |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| Min    | 0.900 | 0.000 | 0.900 | 0.150 | 0.080 | 2.000 | 1.150 | 2.150 | 0.65 | 1.200 | 0.525 | 0.260 |
| Max    | 1.100 | 0.100 | 1.000 | 0.350 | 0.150 | 2.200 | 1.350 | 2.450 | TYP  | 1.400 | REF   | 0.460 |

| Symbol | $\theta$ |
|--------|----------|
| Min    | 0°       |
| Max    | 8°       |



8.Ordering information



| Order Code       | Package | Base QTY | Delivery Mode |
|------------------|---------|----------|---------------|
| UMW DRTR5V0U4S-7 | SOT-363 | 3000     | Tape and reel |



## **9.Disclaimer**

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