

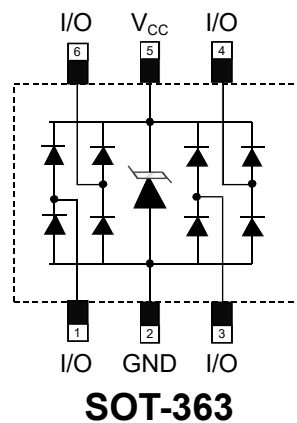
## 1.Features

- 40Watts peak pulse power ( $t_p=8/20\mu s$ )
- SOT-363 package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ( $C_j=0.25pF$  typ.)
- Protection one data/power line
- IEC 61000-4-2  $\pm 15kV$  contact  $\pm 20kV$  air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 3.5A (8/20 $\mu s$ )

## 2.Applications

- Ethernet
- Digital Visual Interface
- (DVI) USB2.0
- Notebook and PC
- Computers

## 3.Pinning information





#### 4. Absolute Maximum Ratings

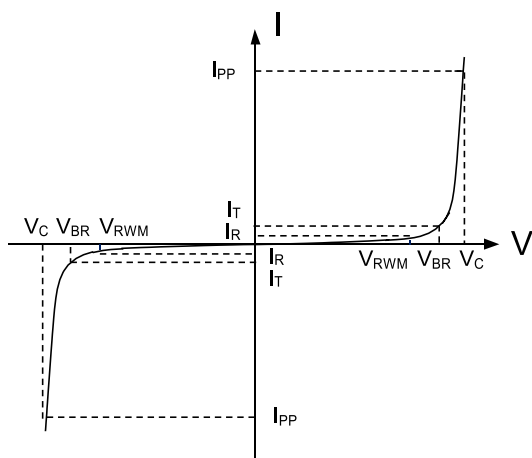
| Parameter                                     | Symbol    | Value          | Units |
|-----------------------------------------------|-----------|----------------|-------|
| Peak Pulse Power ( $t_p=8/20\mu s$ )          | $P_{PP}$  | 40             | W     |
| Peak Pulse Current ( $t_p=8/20\mu s$ )(note1) | $I_{PP}$  | 3.5            | A     |
| ESD per IEC 61000-4-2(Air)                    | $V_{ESD}$ | 20             | kV    |
| ESD per IEC 61000-4-2(Contact)                |           | 15             | kV    |
| Lead Soldering Temperature                    | $T_L$     | 260(10seconds) | °C    |
| Junction Temperature                          | $T_J$     | -55 to 125     | °C    |
| Storage Temperature                           | $T_{STG}$ | -55 to 125     | °C    |



## 5. Electrical Characteristics

| Parameter                 | Symbol    | Conditions                      | Min | Typ  | Max  | Units |
|---------------------------|-----------|---------------------------------|-----|------|------|-------|
| Reverse Stand-off Voltage | $V_{RWM}$ |                                 |     |      | 5    | V     |
| Reverse Breakdown Voltage | $V_{BR}$  | $I_T=1mA$                       | 6   |      |      | V     |
| Reverse Leakage Current   | $I_R$     | $V_{RWM}=5V$ , $T=25^{\circ}C$  |     | 50   | 500  | nA    |
| Peak Pulse Current        | $I_{PP}$  | $t_p=8/20\mu s$                 |     |      | 3    | A     |
| Clamping Voltage          | $V_C$     | $I_{PP}=3.5A$ , $t_p=8/20\mu s$ |     | 9    | 13   | V     |
| Junction Capacitance      | $C_J$     | $V_R=0V$ , $f=1MHz$ , IO to IO  |     | 0.2  | 0.25 | pF    |
|                           |           | $V_R=0V$ , $f=1MHz$ , IO to GND |     | 0.35 | 0.4  | pF    |

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

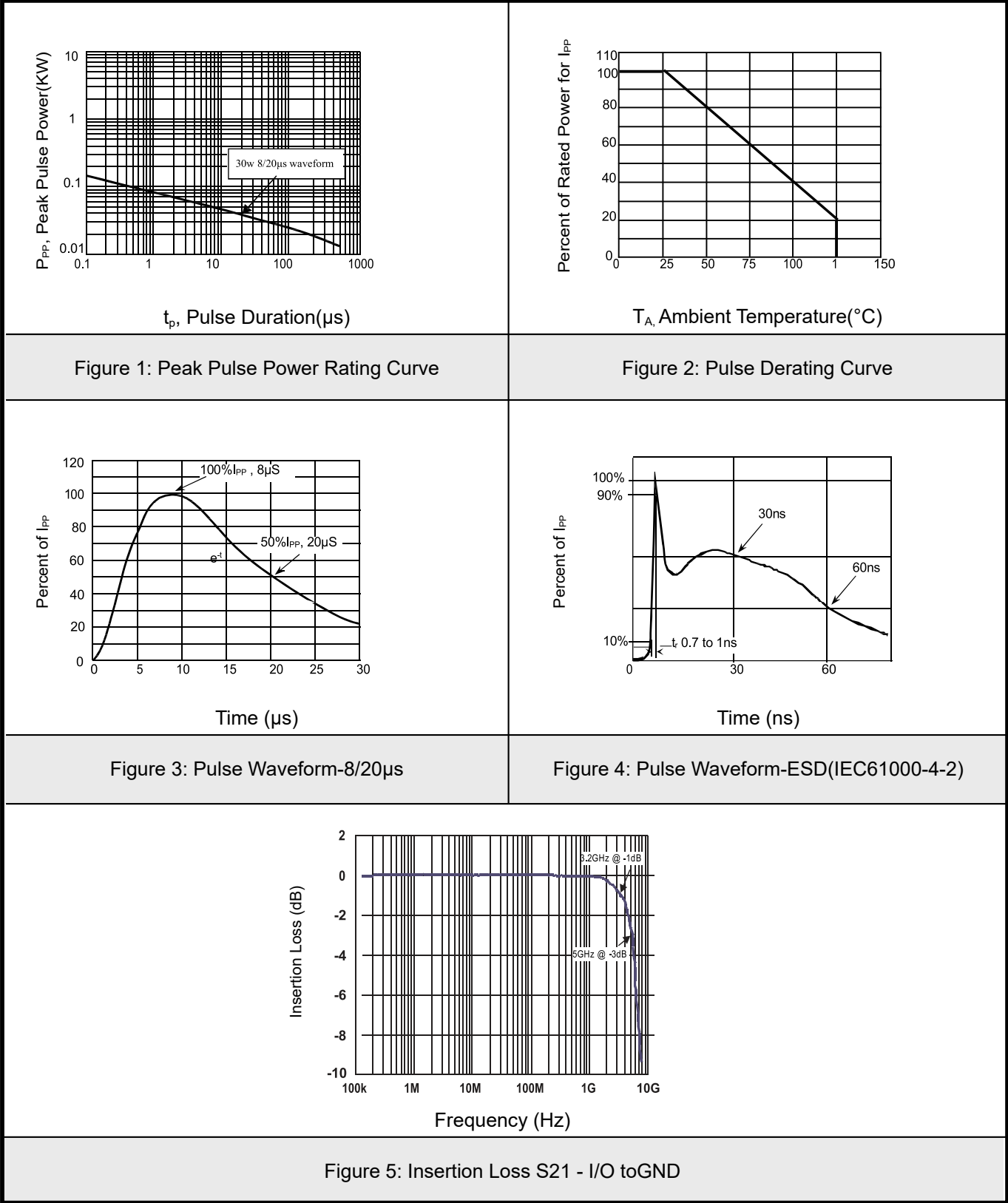


| Symbol    | Parameter                                   |
|-----------|---------------------------------------------|
| $I_{PP}$  | Maximum Reverse Peak Pulse Current          |
| $V_C$     | Clamping Voltage @ $I_{PP}$                 |
| $V_{RWM}$ | Working Peak Reverse Voltage                |
|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

Notes: 8/20 $\mu s$  pulse waveform.

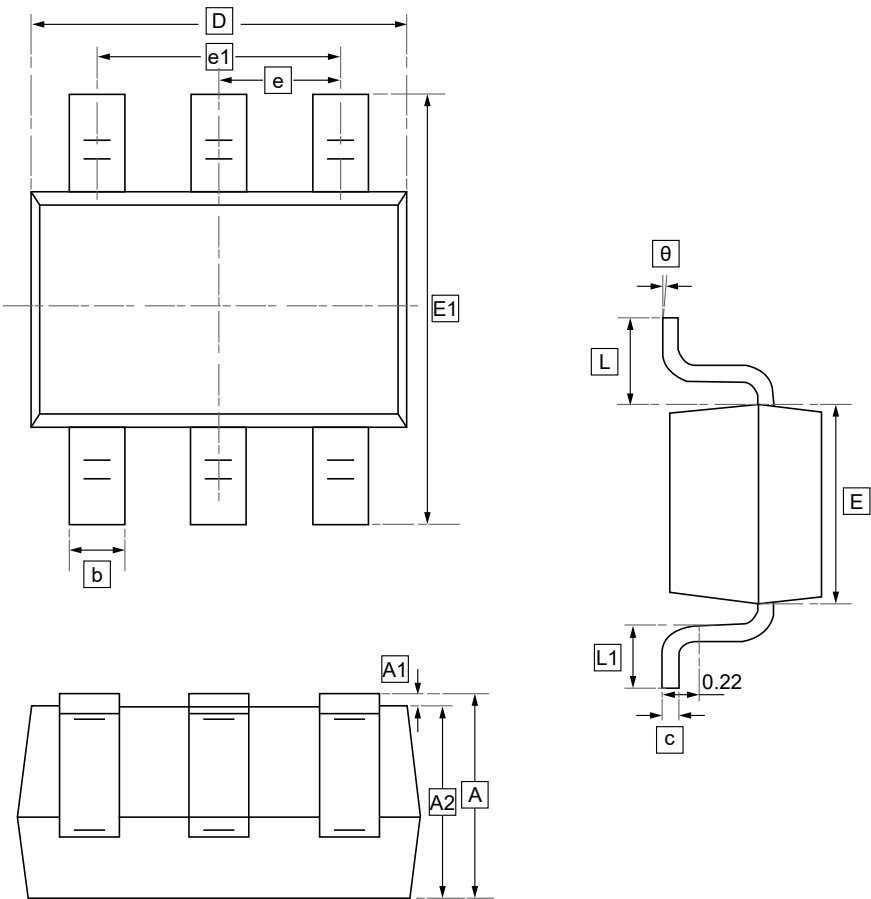


7. Typical characteristic





8.SOT-363 Package Outline Dimensions



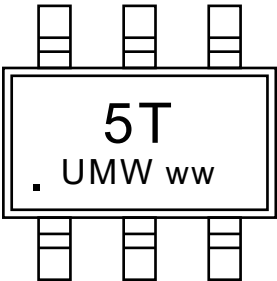
DIMENSIONS (mm are the original dimensions)

| 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°       |



9.Ordering information



ww: Batch Code

| Order Code      | Package | Base QTY | Delivery Mode |
|-----------------|---------|----------|---------------|
| UMW BST363A054U | SOT-363 | 3000     | Tape and reel |



## **10.Disclaimer**

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