



## SLVU2.8

Preliminary

DIODE

### LOW VOLTAGE DIODE FOR ESD AND LATCH-UP PROTECTION

#### DESCRIPTION

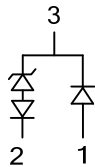
The UTC **SLVU2.8** is a low voltage diode, it uses UTC's advanced technology to provide customers with low leakage current, low capacitance, low operating and clamping voltage, etc.

The UTC **SLVU2.8** is suitable for switching systems, laser diode protection and WAN/LAN Equipment, etc.

#### FEATURES

- \* Low leakage current
- \* Low capacitance
- \* Low clamping voltages
- \* Low operating voltages

#### SYMBOL

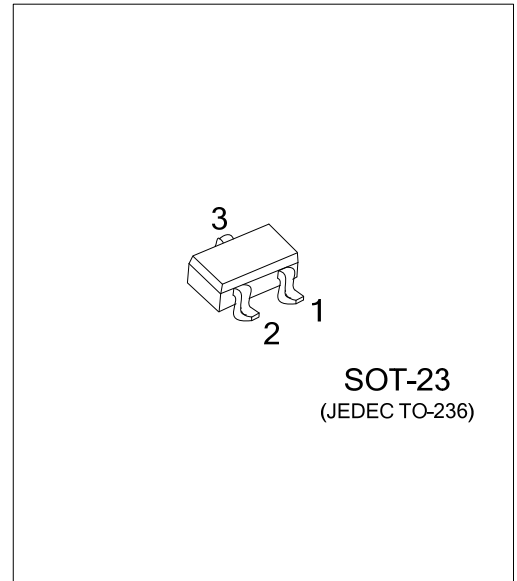
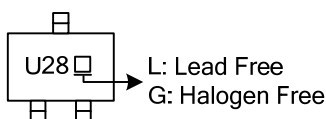


#### ORDERING INFORMATION

| Ordering Number |                | Package | Packing   |
|-----------------|----------------|---------|-----------|
| Lead Free       | Halogen Free   |         |           |
| SLVU2.8L-AE3-R  | SLVU2.8G-AE3-R | SOT-23  | Tape Reel |

|  |   |
|--|---|
| <p>SLVU2.8L-AE3-R</p> <p>(1)Packing Type<br/>(2)Package Type<br/>(3)Halogen Free</p> | <p>(1) R: Tape Reel<br/>(2) AE3 : SOT-23<br/>(3) L: Lead Free, G:Halogen Free</p> |
|--|---|

#### MARKING



### ■ ABSOLUTE MAXIMUM RATINGS

| PARAMETER                      | SYMBOL           | RATINGS          | UNIT |
|--------------------------------|------------------|------------------|------|
| Peak Pulse Current (tp=8/20μs) | I <sub>PP</sub>  | 24               | A    |
| Peak Pulse Power (tp=8/20μs)   | P <sub>PK</sub>  | 400              | W    |
| Lead Soldering Temperature     | T <sub>L</sub>   | 260 (10 seconds) | °C   |
| Storage Temperature            | T <sub>STG</sub> | -55~+150         | °C   |
| Operating Junction Temperature | T <sub>J</sub>   | -55~+125         | °C   |

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

### ■ ELECTRICAL CHARACTERISTICS

| PARAMETER                             | SYMBOL           | TEST CONDITIONS  | MIN | TYP | MAX  | UNIT |
|---------------------------------------|------------------|--|-----|-----|------|------|
| Reverse Stand-Off Voltage             | V <sub>RWM</sub> | Pin 3 to 2 or Pin 1 to 2   |     |     | 2.8  | V    |
| Punch-Through Voltage                 | V <sub>PT</sub>  | I <sub>PT</sub> =2μA, Pin 3 to 2   | 3.0 |     |      | V    |
| Snap-Back Voltage                     | V <sub>SB</sub>  | I <sub>SB</sub> =50mA, Pin 3 to 2  | 2.8 |     |      | V    |
| Reverse Leakage Current               | I <sub>R</sub>   | V <sub>RWM</sub> =2.8V, T=25°C, Pin 3 to 2 or Pin 1 to 2                 |     |     | 1    | μA   |
| Clamping Voltage                      | V <sub>C</sub>   | I <sub>PP</sub> =2A, t <sub>p</sub> =8/20μs, Pin 3 to 2                  |     |     | 3.9  | V    |
|                                       |                  | I <sub>PP</sub> =5A, t <sub>p</sub> =8/20μs, Pin 3 to 2                  |     |     | 7    | V    |
|                                       |                  | I <sub>PP</sub> =24A, t <sub>p</sub> =8/20μs, Pin 3 to 2                 |     |     | 12.5 | V    |
|                                       |                  | I <sub>PP</sub> =5A, t <sub>p</sub> =8/20μs, Pin 1 to 2                  |     |     | 8.5  | V    |
|                                       |                  | I <sub>PP</sub> =24A, t <sub>p</sub> =8/20μs, Pin 1 to 2                 |     |     | 15   | V    |
| Junction Capacitance                  | C <sub>j</sub>   | Pin 3 to 2 and 1 (Pin 2 and 1 Tied Together), V <sub>R</sub> =0V, f=1MHz |     | 70  | 100  | pF   |
|                                       |                  | Pin 1 to 2 (Pin 3 N.C.), V <sub>R</sub> =0V, f=1MHz                      |     | 5   | 10   | pF   |
| <b>Steering Diode Characteristics</b> |                  |  |     |     |      |      |
| Reverse Breakdown Voltage             | V <sub>BR</sub>  | I <sub>T</sub> =10μA, Pin 3 to 1   | 40  |     |      | V    |
| Reverse Leakage Current               | I <sub>RD</sub>  | V <sub>RWM</sub> =2.8V, T=25°C, Pin 3 to 1                               |     |     | 1    | μA   |
| Forward Voltage                       | V <sub>F</sub>   | I <sub>F</sub> =1A, Pin 1 to 3   |     |     | 2    | V    |

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