

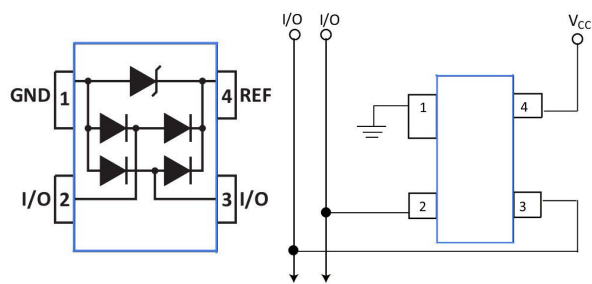
## Features

- 165W Peak Pulse Power Per Line(8/20us)
- 5V Working Peak Reverse Voltage
- Maximum Reverse Peak Pulse Current:15A
- ESD per IEC 61000-4-2(Contact):8KV
- ESD per IEC 61000-4-2(Air):15KV
- Clamping Voltage @IPP=1A:9.8V
- Junction Capacitance:0.6PF
- Package:SOT-143
- Polarity: Unidirectional

## Mechanical Characteristics

- Mechanical Characteristics
- Lead Finish: NiPdAu
- Case Material: “ Green ” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

## Schematic And Configuration



## Ordering Information

| Part Number   | Packaging   | Reel Size |
|---------------|-------------|-----------|
| TEVH0R6V05D2X | Tape & Reel | 7inch     |

## Absolute Maximum Ratings (Ta=25°C, RH=45%-75%, unless otherwise noted)

| Parameter                   | Symbol | Value    | Unit |
|-----------------------------|--------|----------|------|
| Operating Temperature Range | Tj     | -50~+150 | °C   |
| Storage Temperature Range   | Tstg   | -50~+150 | °C   |

## Electrical Characteristics (Ta=25°C)

| Parameter               | Symbol | Min | Type | Max | Unit | Test Condition       |
|-------------------------|--------|-----|------|-----|------|----------------------|
| Reverse Working Voltage | Vrwm   |     |      | 5   | V    |                      |
| Breakdown Voltage       | Vbr    | 7.6 |      |     | V    | It=1mA               |
| Reverse Leakage Current | Ir     |     |      | 0.1 | uA   | Vrwm=5V              |
| Clamping Voltage        | Vc     |     | 9.8  | 11  | V    | Ipp=1A(8×20us pulse) |
| Juntion Capacitance     | Cj     |     | 0.6  | 0.8 | pF   | Vr=0V,f=1MHz         |

# Typical Performance Characteristics (Ta=25°C, unless otherwise noted)

Figure 1- Power Derating Curve

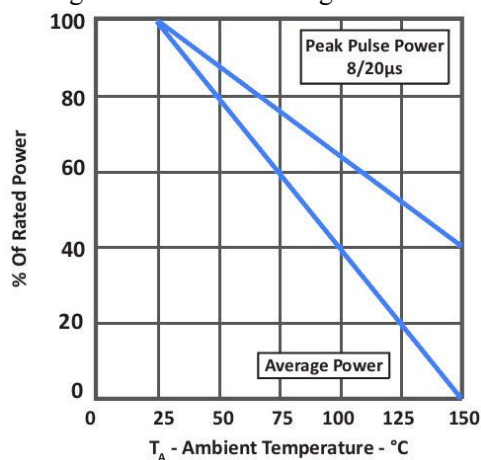


Figure 2- Clamping Voltage vs Current

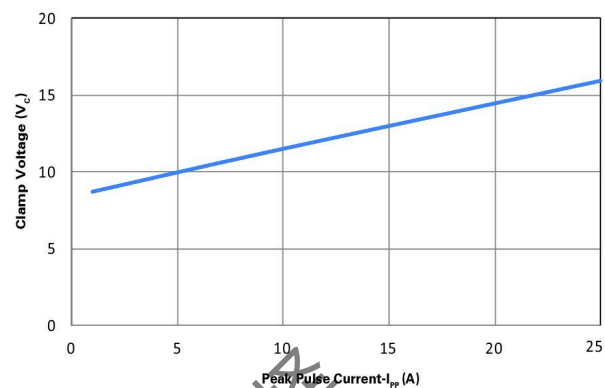


Figure 3- Typical Junction Capacitance

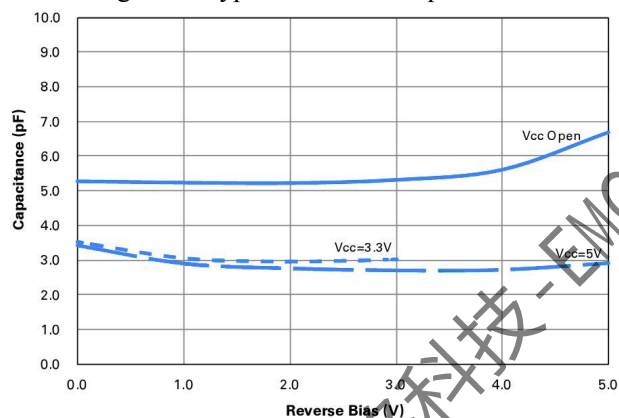
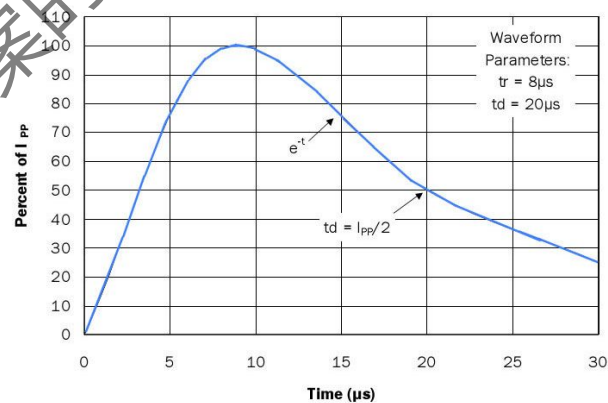
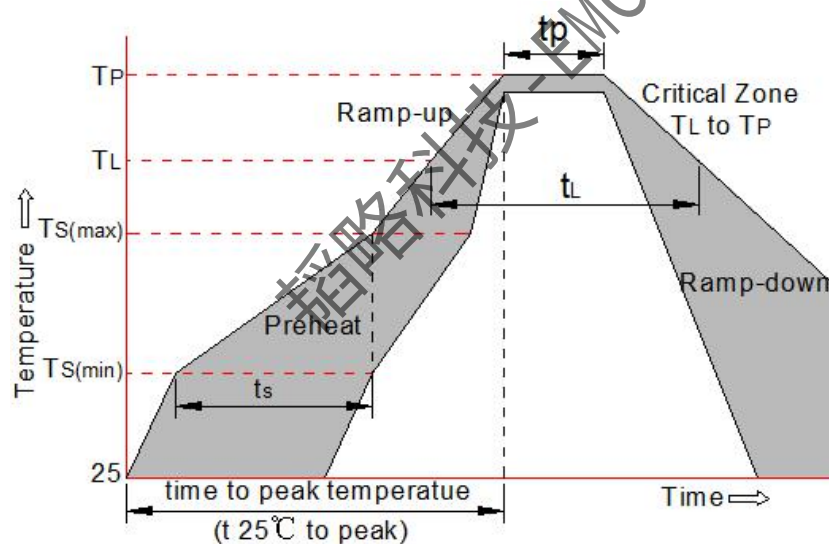


Figure 4- Pulse Waveform

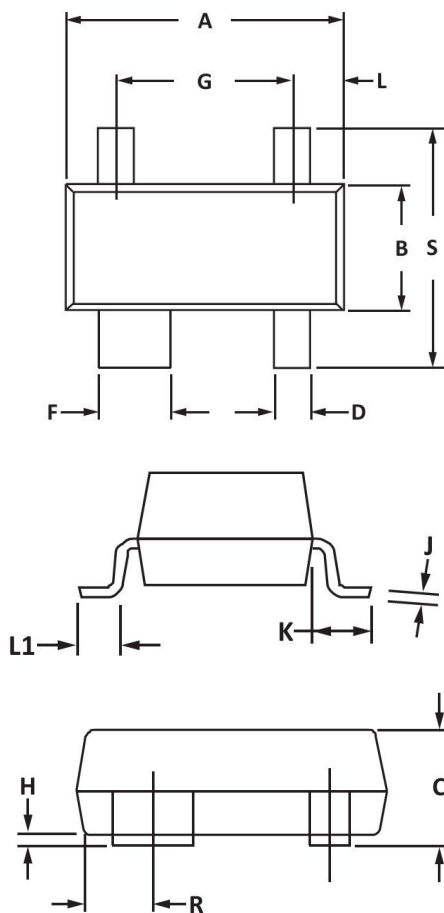


## Soldering Parameters

| Reflow Condition                                        |                                   | Pb-Free Assembly<br>(see as bellow) |
|---------------------------------------------------------|-----------------------------------|-------------------------------------|
| Pre Heat                                                | -Temperature Min ( $T_{s(min)}$ ) | +150°C                              |
|                                                         | -Temperature Max( $T_{s(max)}$ )  | +200°C                              |
|                                                         | -Time (Min to Max) ( $t_s$ )      | 60-180 secs.                        |
| Average ramp up rate (Liquid us Temp ( $T_L$ ) to peak) |                                   | 3°C/sec. Max                        |
| $T_{s(max)}$ to $T_L$ - Ramp-up Rate                    |                                   | 3°C/sec. Max                        |
| Reflow                                                  | -Temperature( $T_L$ ) (Liquid us) | +217°C                              |
|                                                         | -Temperature( $t_L$ )             | 60-150 secs.                        |
| Peak Temp ( $T_p$ )                                     |                                   | +260(+0/-5)°C                       |
| Time within 5°C of actual Peak Temp ( $t_p$ )           |                                   | 30 secs. Max                        |
| Ramp-down Rate                                          |                                   | 6°C/sec. Max                        |
| Time 25°C to Peak Temp ( $T_p$ )                        |                                   | 8 min. Max                          |
| Do not exceed                                           |                                   | +260°C                              |

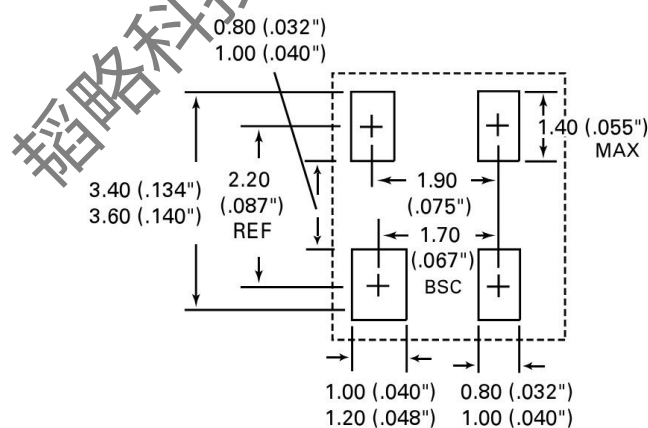


## Package Mechanical Data



| Dim | Millimeters |      | Inches |       |
|-----|-------------|------|--------|-------|
|     | MIN         | MAX  | MIN    | MAX   |
| A   | 2.80        | 3.04 | 0.110  | 0.120 |
| B   | 1.20        | 1.39 | 0.047  | 0.055 |
| C   | 0.84        | 1.14 | 0.033  | 0.045 |
| D   | 0.39        | 0.50 | 0.015  | 0.020 |
| F   | 0.79        | 0.93 | 0.031  | 0.037 |
| G   | 1.78        | 2.03 | 0.070  | 0.080 |
| J   | 0.08        | 0.15 | 0.003  | 0.006 |
| K   | 0.46        | 0.60 | 0.018  | 0.024 |
| L   | 0.045       | 0.60 | 0.0175 | 0.024 |
| L1  | 0.4         | 0.60 | 0.016  | 0.024 |
| R   | 0.72        | 0.83 | 0.028  | 0.033 |
| S   | 2.11        | 2.48 | 0.083  | 0.098 |

## Suggested Land Pattern



## Contact Information

**SHENZHEN TOP-FLIGHT TECHNOLOGY CO.,LTD**

4th Floor, C Building, Quansen Industrial Park , Bulong Road, Longhua New District, Shenzhen

Tel: 86-755-82908191 Fax: 86-755-82908701 Email: kang@topleve.com

Website: <http://www.topleve.com>