## STZ23C5V6

## SURFACE MOUNT ZENER DIODES

## FEATURES

- Planar die construction
- 200mW Power dissipation
- Ideally suited for automated assembly processes
- Exceed ESD standard based on IEC-61000-4-2 Contact : 8kV, Air : 15kV
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)


## MECHANICAL DATA

- Case: SOT-23, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0003 ounce, 0.0084 gram
- Marking: JD


Fig. 25

## MAXIMUM RATINGS

| Parameter | Symbol | Value | Units |
| :--- | :---: | :---: | :---: |
| Maximum Power Dissipation at $25^{\circ} \mathrm{C}$ | PD | 200 | mW |
| Junction Temperature | TJ | 150 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | TsTG | -55 to +150 | ${ }^{\circ}{ }^{\circ} \mathrm{C}$ |

## ELECTRICAL CHARACTERISTICS

| Parameter | Symbol | Condition | Value |  | Unit |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Zener Voltage | Vz | $1 \mathrm{z}=5 \mathrm{~mA}$ | Min. | Max. | V |
|  |  |  | 5.31 | 5.92 | V |
| Maximum DC Reverse Current $\mathrm{TA}^{2}=25^{\circ} \mathrm{C}$ | IR | $\mathrm{V}_{\mathrm{R}}=2.5 \mathrm{~V}$ | 1.0 |  | $\mu \mathrm{A}$ |
| Dynamic Impedance | Z Z $^{\text {r }}$ | $1 \mathrm{z}=5 \mathrm{~mA}$ | 60 |  | $\Omega$ |
| Rising Operation Resistance | Zzk | $\mathrm{Iz}=0.5 \mathrm{~mA}$ | 200 |  | $\Omega$ |
| Capacitance Junction | C | $\begin{aligned} & \mathrm{f}=1 \mathrm{MHz} \\ & \mathrm{~V}_{\mathrm{R}}=5 \mathrm{~V} \end{aligned}$ | 17(Typ.) |  | pF |

Note : Valid provided that leads ara distance of 8 mm from case are kept at ambient temperature

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Fig. 1 Power Derating Curve

Fig. 3 Typical Leakage Current Versus Junction Temperature


Reverse Voltage: $\mathrm{V}_{\mathrm{R}}(\mathrm{V})$
Fig. 5 Typical Capacitance


Fig. 2 Typical Zener Voltage Versus Junction Temperature


Fig. 4 Typical Forward Voltage

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## MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel
T/R - 3K per 7" plastic Reel

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## Part No_packing code_Version

STZ23C5V6_R1_00001
STZ23C5V6_R2_00001

For example :


| Packing Code XX |  |  |  | Version Code |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Packing type | $1^{\text {st }}$ Code | Packing size code | $2^{\text {nd }}$ Code | HF or RoHS | $1^{\text {st }}$ Code | $2^{\text {nd }} \sim 5^{\text {th }}$ Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 |  |  |  |
| Tube Packing (T/P) | T | 26 mm | X |  |  |  |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y |  |  |  |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U |  |  |  |
| FORMING | F | PANASERT TIB CATHODE DOWN (PBCD) | D |  |  |  |

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