## Small Signal Product

## 200mW High Speed SMD Switching Diode

## FEATURES

- Fast switching device (trr<4.0ns)
- Surface Mount Device Type
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish with Nickel (Ni) underplate
- Pb free version and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)


SOD-323F


## MECHANICAL DATA

- Case: Flat lead SOD-323F small outline plastic package
- Terminal: Matte tin plated, lead free,
solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed: $260^{\circ} \mathrm{C} / 10$ s
- Polarity: Indicated by cathode band
- Weight: $6 \pm 0.5 \mathrm{mg}$
- Marking code: S4

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS $\left(\mathrm{T}_{\mathrm{A}}=25^{\circ} \mathrm{C}\right.$ unless otherwise noted)

| PARAMETER | SYMBOL | VALUE | UNIT |
| :--- | :---: | :---: | :---: |
| Power Dissipation | $\mathrm{P}_{\mathrm{D}}$ | 200 | mW |
| Repetitive Peak Reverse Voltage | $\mathrm{V}_{\mathrm{RRM}}$ | 90 | V |
| Reverse Voltage | $\mathrm{V}_{\mathrm{R}}$ | 80 | V |
| Minimum Breakdown Voltage at $\mathrm{I}_{\mathrm{R}}=100 \mu \mathrm{~A}$ | $\mathrm{~V}_{\mathrm{BR}}$ | 80 | V |
| Forward Current | $\mathrm{I}_{\mathrm{F}}$ | 250 | mA |
| Continue Forward Current | $\mathrm{I}_{\mathrm{O}}$ | 150 | mA |
| Repetitive Peak Forward Voltage | $\mathrm{I}_{\mathrm{FSM}}$ | 500 | mA |
| Maximum Reverse Leakage Current at $\mathrm{V}_{\mathrm{R}}=80 \mathrm{~V}$ | $\mathrm{I}_{\mathrm{R}}$ | 100 | nA |
| Maximum Forward Voltage at $\mathrm{I}_{\mathrm{F}}=100 \mathrm{~mA}$ | $\mathrm{~V}_{\mathrm{F}}$ | 1.2 | V |
| Maximum Reverse Recovery Time <br> at $\mathrm{I}_{\mathrm{F}}=10 \mathrm{~mA}, \mathrm{~V}_{\mathrm{R}}=6 \mathrm{~V}, \mathrm{R}_{\mathrm{L}}=100$ Ohms | $\mathrm{t}_{\mathrm{rr}}$ | 4 | ns |
| Maximum Junction Capacitance at $\mathrm{V}_{\mathrm{R}}=0.5 \mathrm{~V}, \mathrm{f}=1 \mathrm{MHz}$ | $\mathrm{C}_{\mathrm{j}}$ |  | pF |
| OperatingTemperature Range | $\mathrm{T}_{\mathrm{OPR}}$ |  | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T}_{\mathrm{STG}}$ |  | ${ }^{\circ}$ |

Note : These ratings are limiting values above which the serviceability of the diode may be impaired

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## ORDERING INFORMATION

| PART NO. | PART NO. <br> SUFFIX | PACKING CODE | PACKING CODE <br> SUFFIX | PACKAGE | PACKING |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 SS 355 | $\left.\begin{array}{c}-x x \\ (N o t e ~\end{array}\right)$ | RR | G | SOD-323F | $3 \mathrm{~K} / 77^{\prime \prime} \mathrm{Reel}$ |
|  | R 9 |  | $10 \mathrm{~K} / 13^{\prime \prime} \mathrm{Reel}$ |  |  |

Note 1: Part No. Suffix „-xx " would be used for special requirement

| EXAMPLE |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PREFERRED P/N | PART NO. | PART NO. SUFFIX | PACKING CODE | PACKING CODE SUFFIX | DESCRIPTION |
| 1SS355 RRG | 1SS355 |  | RR | G | Multiple manufacture source Green compound |
| 1SS355-L0 RRG | 1SS355 | -L0 | RR | G | Defined manufacture source Green compound |
| 1SS355-B0 RRG | 1SS355 | -B0 | RR | G | Defined manufacture source Green compound |

## PACKAGE OUTLINE DIMENSIONS

SOD-323F


| DIM. | Unit (mm) |  | Unit (inch) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Min | Max | Min | Max |
| A | 1.15 | 1.35 | 0.045 | 0.053 |
| B | 2.30 | 2.80 | 0.091 | 0.110 |
| C | 0.25 | 0.40 | 0.010 | 0.016 |
| D | 1.60 | 1.80 | 0.063 | 0.071 |
| E | 0.80 | 1.10 | 0.031 | 0.043 |
| F | 0.05 | 0.25 | 0.002 | 0.010 |



## sUGGEST PAD LAYOUT



D

| DIM. | Unit (mm) | Unit (inch) |
| :---: | :---: | :---: |
|  | Typ. | Typ. |
| A | 0.630 | 0.025 |
| B | 0.830 | 0.033 |
| C | 1.600 | 0.063 |
| D | 2.860 | 0.113 |

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