

## Fast Recovery Rectifier

## SOD2A0FKHM--SOD2A0FMHM

### Features

- For surface mounted applications
- Ideal for automated placement
- Low forward voltage drop
- High surge current capability
- RoHS Compliant
- Halogen Free

HF



### Mechanical Data

- Case: SOD-123FL molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode end

### Maximum Ratings (@T<sub>A</sub> = 25°C unless otherwise specified)

| Characteristic                                             | Symbol                                     | SOD2A0FKHM | SOD2A0FMHM | Units |
|------------------------------------------------------------|--------------------------------------------|------------|------------|-------|
| Peak repetitive reverse voltage                            | V <sub>RRM</sub>                           | 800        | 1000       | V     |
| RMS reverse voltage                                        | V <sub>RMS</sub>                           | 560        | 700        | V     |
| DC blocking voltage                                        | V <sub>DC</sub>                            | 800        | 1000       | V     |
| Maximum average forward output current                     | I <sub>F(AV)</sub>                         | 2.0        |            | A     |
| Peak forward surge current,<br>8.3ms single half-sine-wave | @T <sub>J</sub> = 25°C<br>I <sub>FSM</sub> | 50         |            | A     |

### Thermal Characteristics

| Parameter                              | Symbol           | SOD2A0FKHM      | SOD2A0FMHM | Units |
|----------------------------------------|------------------|-----------------|------------|-------|
| Typical thermal resistance<br>(Note 1) | R <sub>ΘJA</sub> | 85              |            | °C /W |
|                                        | R <sub>ΘJC</sub> | 23              |            |       |
|                                        | R <sub>ΘJL</sub> | 15              |            |       |
| Operating junction temperature range   | T <sub>J</sub>   | - 55 ---- + 150 |            | °C    |
| Storage temperature range              | T <sub>STG</sub> | - 55 ---- + 150 |            | °C    |

Note:

1. Device mounted on PCB with 10 mm x 20 mm x 0.1mm copper pad areas

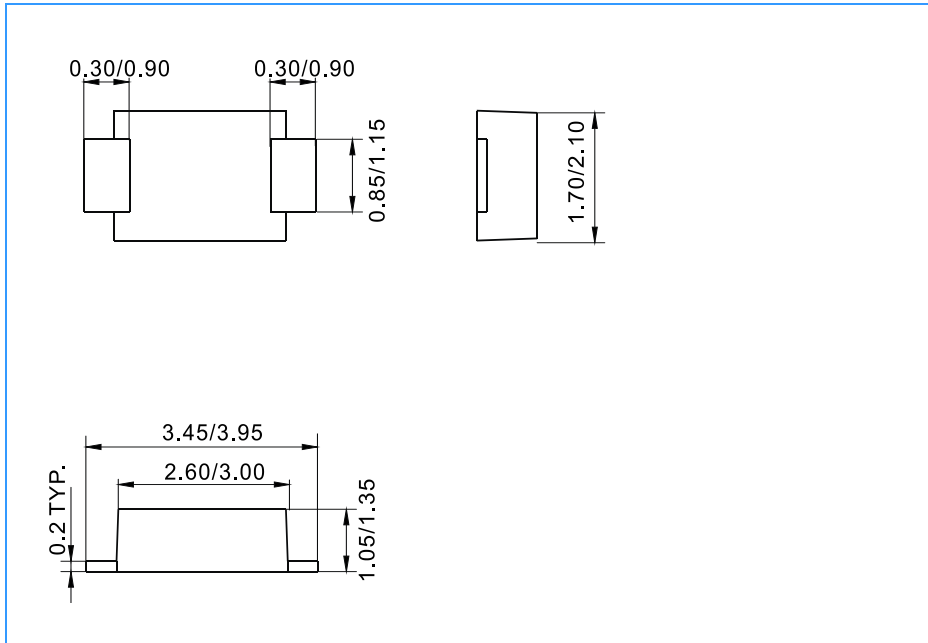
**Fast Recovery Rectifier****SOD2A0FKHM--SOD2A0FMHM****Electrical Characteristics** (@ $T_A = 25^\circ\text{C}$  unless otherwise specified)

| Parameter                             | Symbol   | Test conditions                                              |                           | Typ. | Max. | Units         |
|---------------------------------------|----------|--------------------------------------------------------------|---------------------------|------|------|---------------|
| Maximum instantaneous forward voltage | $V_F$    | $I_F=2.0\text{A}$                                            |                           | --   | 1.3  | V             |
| Maximum Reverse current               | $I_R$    | Rated $V_R$ ,                                                | @ $T_A=25^\circ\text{C}$  | --   | 10   | $\mu\text{A}$ |
|                                       |          |                                                              | @ $T_A=125^\circ\text{C}$ | --   | 200  |               |
| Maximum Reverse Recovery Time         | $t_{rr}$ | $I_F=0.5\text{A}, I_{RM}=1\text{A}, I_{R(REC)}=0.25\text{A}$ |                           | --   | 150  | ns            |

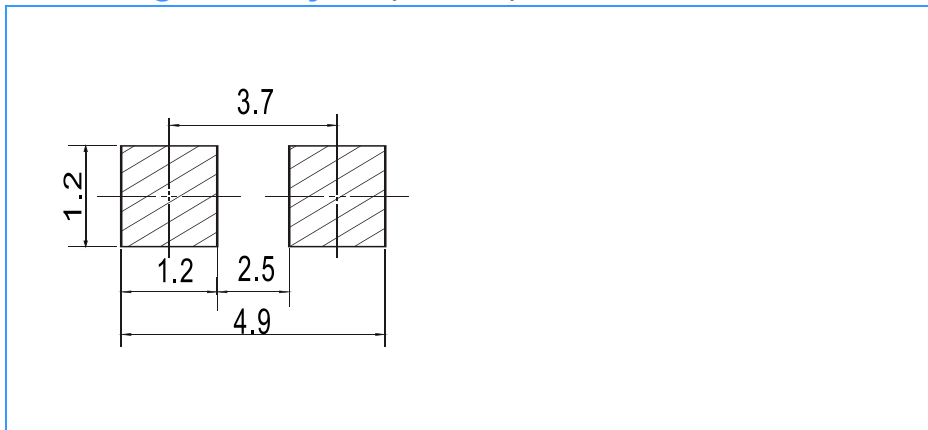
## Fast Recovery Rectifier

## SOD2A0FKHM--SOD2A0FMHM

### Package Outline Dimensions(unit:mm)



### Mounting Pad Layout(unit:mm)



### Ordering Information

| Part No.   | Marking | Package   | Shipping         |
|------------|---------|-----------|------------------|
| SOD2A0FKHM | 20FK    | SOD-123FL | 10000 /Tape&Reel |
| SOD2A0FMHM | 20FM    | SOD-123FL | 10000 /Tape&Reel |