

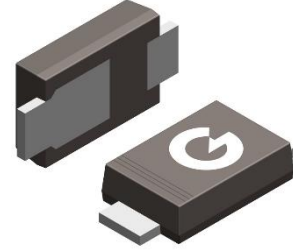
## Surface Mount Rectifiers

## TH05DHE

### Features

- Planar passivated chips
- Ultra low leakage reverse current
- High temperature performance
- High surge current capability
- RoHS compliant with Halogen-free
- Qualified to AEC-Q101 Standards

HF



### Mechanical Data

- Case: SOD-323HE molded plastic
- Molding compound: UL flammability classification rating 94V-0

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

| Parameter                                                  | Symbol            | TH05DHE | Unit |
|------------------------------------------------------------|-------------------|---------|------|
| Peak Repetitive Reverse Voltage                            | V <sub>RRM</sub>  | 200     | V    |
| RMS Reverse Voltage                                        | V <sub>RMS</sub>  | 140     | V    |
| DC Blocking Voltage                                        | V <sub>DC</sub>   | 200     | V    |
| Average Forward Output Current                             | I <sub>F_AV</sub> | 0.5     | A    |
| Peak Forward Surge Current,<br>8.3ms Single Half Sine wave | I <sub>FSM</sub>  | 6       | A    |

### Thermal Characteristics

| Parameter                            | Symbol           | TH05DHE    | Unit |
|--------------------------------------|------------------|------------|------|
| Typical Thermal Resistance *1        | R <sub>θJA</sub> | 88         | °C/W |
|                                      | R <sub>θJC</sub> | 35         |      |
|                                      | R <sub>θJL</sub> | 22         |      |
| 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 p.c.b. with 2.2cm x 1.7 cm x 1mm copper pad area

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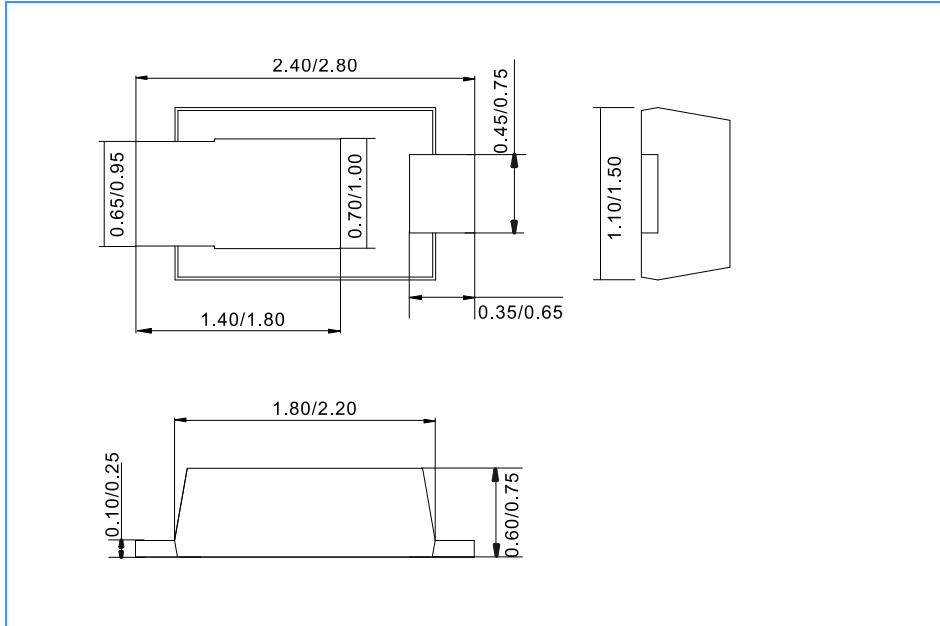
### Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter                     | Symbol   | Test Conditions                                                    |                             | Typ. | Max. | Unit          |
|-------------------------------|----------|--------------------------------------------------------------------|-----------------------------|------|------|---------------|
| Instantaneous Forward Voltage | $V_F$    | $I_F = 0.5\text{A}$                                                |                             | -    | 0.98 | V             |
| Reverse Current               | $I_R$    | Rated<br>$V_R$                                                     | @ $T_A = 25^\circ\text{C}$  | -    | 10   | $\mu\text{A}$ |
|                               |          |                                                                    | @ $T_A = 125^\circ\text{C}$ | -    | 300  |               |
| Reverse Recovery Time         | $t_{rr}$ | $I_F = 0.5\text{A}, I_{RM} = 1\text{A}, I_{R(REC)} = 0.25\text{A}$ |                             | -    | 25   | ns            |

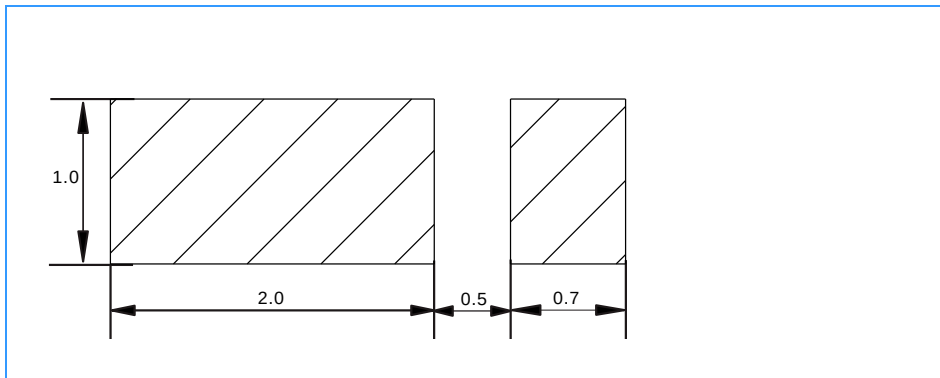
## Surface Mount Rectifiers

## TH05DHE

### Package Outline Dimensions (Unit: mm)



### Mounting Pad Layout (Unit: mm)



### Ordering Information

| Part Number | Marking | Package   |
|-------------|---------|-----------|
| TH05DHE     | 0.5D    | SOD-323HE |