

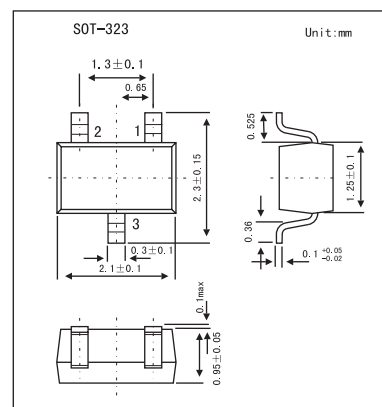
## Silicon Schottky Diodes

### BAS125W;BAS125-04W

### BAS125-05W;BAS125-06W

#### ■ Features

- For low-loss, fast-recovery, meter protection, bias isolation and clamping application
- Integrated diffused guard ring
- Low forward voltage



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

| Parameter                                           | Symbol     | Value       | Unit             |
|-----------------------------------------------------|------------|-------------|------------------|
| Diode reverse voltage                               | $V_R$      | 25          | V                |
| Forward current                                     | $I_F$      | 100         | mA               |
| Surge forward current ( $t \leq 10\text{ms}$ )      | $I_{FSM}$  | 500         | mA               |
| Total Power dissipation $T_s \leq 25^\circ\text{C}$ | $P_{tot}$  | 250         | mW               |
| Junction temperature                                | $T_j$      | 150         | $^\circ\text{C}$ |
| Storage temperature                                 | $T_{stg}$  | -50 to +150 | $^\circ\text{C}$ |
| Junction ambient BAS125W (Note 1)                   | $R_{thJA}$ | $\leq 310$  | K/W              |
| Junction ambient BAS125-04W...06W (Note 1)          | $R_{thJA}$ | $\leq 425$  | K/W              |
| Junction - soldering point BAS125W                  | $R_{thJS}$ | $\leq 230$  | K/W              |
| Junction - soldering point BAS125-04W...06W         | $R_{thJS}$ | $\leq 265$  | K/W              |

Note

Package mounted on alumina  $15\text{mm} \times 16.7\text{mm} \times 0.7\text{mm}$

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

| Parameter                       | Symbol | Test Conditions                        | Min | Typ | Max | Unit     |
|---------------------------------|--------|----------------------------------------|-----|-----|-----|----------|
| Reverse current                 | $I_R$  | $V_R = 20\text{ V}$                    |     |     | 150 | nA       |
|                                 |        | $V_R = 25\text{ V}$                    |     |     | 200 |          |
| Forward voltage                 | $V_F$  | $I_F = 1\text{ mA}$                    |     | 385 | 400 | mV       |
|                                 |        | $I_F = 10\text{ mA}$                   |     | 530 | 650 |          |
|                                 |        | $I_F = 35\text{ mA}$                   |     | 800 | 900 |          |
| Diode capacitance               | $C_T$  | $V_R = 0\text{ V}, f = 1\text{ MHz}$   |     |     | 1.1 | pF       |
| Differential forward resistance | $R_F$  | $I_F = 5\text{ mA}, f = 10\text{ KHz}$ |     | 16  |     | $\Omega$ |

#### ■ Marking

| Type    | BAS125W | BAS125-04W | BAS125-05W | BAS125-06W |
|---------|---------|------------|------------|------------|
| Marking | 13s     | 14s        | 15s        | 16s        |