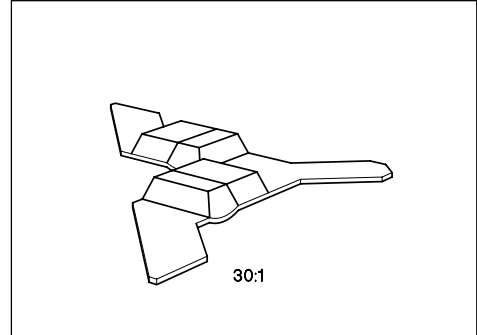


## Silicon Schottky Diodes

## BAT 14- ... D

- Beam lead technology
- Low dimension
- High performance
- Medium barrier



**ESD:** Electrostatic discharge sensitive device, observe handling precautions!

| Type         | Marking | Ordering Code | Pin Configuration | Package <sup>1)</sup> |
|--------------|---------|---------------|-------------------|-----------------------|
| BAT 14-020 D | —       | Q62702-D1259  |                   | D                     |
| BAT 14-050 D |         | Q62702-D1268  |                   |                       |
| BAT 14-090 D |         | Q62702-D1276  |                   |                       |
| BAT 14-110 D |         | Q62702-D1285  |                   |                       |

### Maximum Ratings

| Parameter                   | Symbol    | Values                       |                              | Unit |
|-----------------------------|-----------|------------------------------|------------------------------|------|
|                             |           | BAT 14-020 D<br>BAT 14-050 D | BAT 14-090 D<br>BAT 14-110 D |      |
| Reverse voltage             | $V_R$     | 4                            | 4                            | V    |
| Forward current             | $I_F$     | 100                          | 50                           | mA   |
| Junction temperature        | $T_j$     | 175                          |                              | °C   |
| Storage temperature range   | $T_{stg}$ | − 65 ... + 150               |                              |      |
| Operating temperature range | $T_{op}$  | − 65 ... + 150               |                              |      |

<sup>1)</sup> For detailed information see chapter Package Outlines.

**Electrical Characteristics**at  $T_A = 25\text{ °C}$ , unless otherwise specified.

| Parameter | Symbol | Values |      |      | Unit |
|-----------|--------|--------|------|------|------|
|           |        | min.   | typ. | max. |      |

**DC Characteristics**

|                                                                                                           |            |   |      |      |          |
|-----------------------------------------------------------------------------------------------------------|------------|---|------|------|----------|
| Breakdown voltage<br>$I_R = 10\text{ }\mu\text{A}$                                                        | $V_{(BR)}$ | 4 | —    | —    | V        |
| Diode capacitance<br>$V_R = 0, f = 1\text{ MHz}$                                                          | $C_T$      | — | 0.30 | 0.35 | pF       |
| BAT 14-020 D                                                                                              |            | — | 0.20 | 0.25 |          |
| BAT 14-050 D                                                                                              |            | — | 0.14 | 0.15 |          |
| BAT 14-090 D                                                                                              |            | — | 0.10 | 0.12 |          |
| BAT 14-110 D                                                                                              |            | — |      |      |          |
| Forward voltage<br>$I_F = 1\text{ mA}$                                                                    | $V_F$      | — | 0.45 | —    | V        |
| BAT 14-020 D                                                                                              |            | — | 0.47 | —    |          |
| BAT 14-050 D                                                                                              |            | — | 0.49 | —    |          |
| BAT 14-090 D                                                                                              |            | — | 0.50 | —    |          |
| BAT 14-110 D                                                                                              |            | — | 0.55 | —    |          |
| $I_F = 10\text{ mA}$                                                                                      |            | — | 0.57 | —    |          |
| BAT 14-020 D                                                                                              |            | — | 0.60 | —    |          |
| BAT 14-050 D                                                                                              |            | — | 0.65 | —    |          |
| BAT 14-090 D                                                                                              |            | — |      |      |          |
| BAT 14-110 D                                                                                              |            | — |      |      |          |
| Single sideband noise figure<br>$F_{IF} = 1.5\text{ dB}, P_{LO} = 0\text{ dBm}, f_{IF} = 10.7\text{ MHz}$ | $F_{SSB}$  | — | 6.0  | —    | dB       |
| $f = 3.0\text{ GHz}$                                                                                      |            | — | 6.5  | —    |          |
| $f = 6.0\text{ GHz}$                                                                                      |            | — | 6.5  | —    |          |
| $f = 9.3\text{ GHz}$                                                                                      |            | — | 7.0  | —    |          |
| $f = 16\text{ GHz}$                                                                                       |            | — |      |      |          |
| Differential forward resistance<br>$I_F = 10\text{ mA}$                                                   | $r_f$      | — | 3.5  | —    | $\Omega$ |
| BAT 14-020 D                                                                                              |            | — | 4.0  | —    |          |
| BAT 14-050 D                                                                                              |            | — | 7.0  | —    |          |
| BAT 14-090 D                                                                                              |            | — | 10.0 | —    |          |
| BAT 14-110 D                                                                                              |            | — |      |      |          |