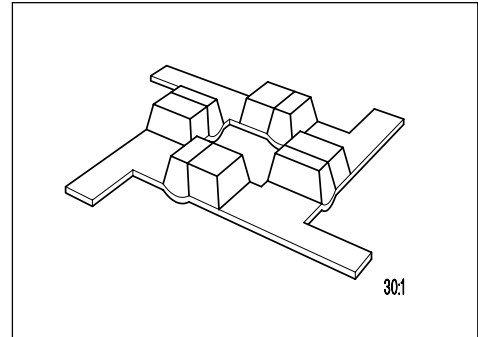


Silicon Schottky Diodes

BAT 14- ... R

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



ESD: Electrostatic discharge sensitive device, observe handling precautions!

| Type | Marking | Ordering Code | Pin Configuration | Package ¹⁾ |
|--------------|---------|---------------|-------------------|-----------------------|
| BAT 14-020 R | - | Q62702-D1260 | | R |
| BAT 14-050 R | | Q62702-D1269 | | |
| BAT 14-090 R | | Q62702-D1277 | | |
| BAT 14-110 R | | Q62702-D1286 | | |

Maximum Ratings

| Parameter | Symbol | Values | | Unit |
|-----------------------------|-----------|------------------------------|------------------------------|------|
| | | BAT 14-020 R BAT 14-050 R | BAT 14-090 R BAT 14-110 R | |
| 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 | | |

¹⁾ 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

| | | | | | | | | |
|---|--|--------|------------------|------------------------------|------------------------------|----|------------------|----------|
| Diode capacitance $V_R = 0, f = 1\text{ MHz}$ | BAT 14-020 R BAT 14-050 R BAT 14-090 R BAT 14-110 R | C_T | – – – – | 0.30 0.20 0.14 0.10 | 0.35 0.25 0.15 0.12 | pF | | |
| Forward voltage $I_F = 1\text{ mA}$ | BAT 14-020 R BAT 14-050 R BAT 14-090 R BAT 14-110 R | V_F | – – – – | 0.45 0.47 0.49 0.50 | – – – – | V | | |
| $I_F = 10\text{ mA}$ | BAT 14-020 R BAT 14-050 R BAT 14-090 R BAT 14-110 R | | – – – – | 0.55 0.57 0.60 0.65 | – – – – | | | |
| Single sideband noise figure $F_{IF} = 1.5\text{ dB}, P_{LO} = 0\text{ dBm}, f_{IF} = 10.7\text{ MHz}$ | BAT 14-020 R BAT 14-050 R BAT 14-090 R BAT 14-110 R | | F_{SSB} | – – – – | 6.0 6.5 6.5 7.0 | | – – – – | dB |
| $f = 3.0\text{ GHz}$ | | | | | | | | |
| $f = 6.0\text{ GHz}$ | | | | | | | | |
| $f = 9.3\text{ GHz}$ | | | | | | | | |
| $f = 16\text{ GHz}$ | | | | | | | | |
| Differential forward resistance $I_F = 10\text{ mA}$ | BAT 14-020 R BAT 14-050 R | | r_f | – – | 3.5 4.0 | | – – | Ω |
| $I_F = 50\text{ mA}$ | BAT 14-090 R BAT 14-110 R | – – | | 7.0 10.0 | – – | | | |