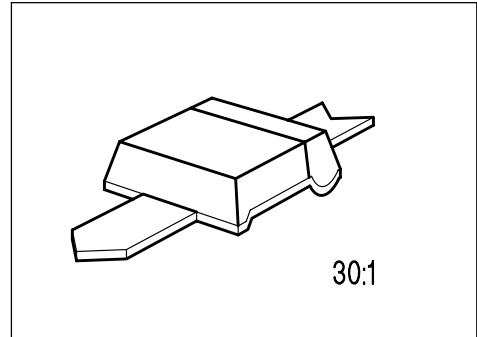


## Silicon Schottky Diodes

## BAT 14- ... S

- 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 S	–	Q62702-D1258	Pointed cathode 	S
BAT 14-050 S		Q62702-D1267		
BAT 14-090 S		Q62702-D1275		
BAT 14-110 S		Q62702-D1284		

### Maximum Ratings

Parameter	Symbol	Values		Unit
		BAT 14-020 S BAT 14-050 S	BAT 14-090 S BAT 14-110 S	
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 $I_R = 10\text{ }\mu\text{A}$	$V_{(BR)}$	4	–	–	V
Diode capacitance $V_R = 0, f = 1\text{ MHz}$	$C_T$				pF
	BAT 14-020 S	–	0.30	0.35	
	BAT 14-050 S	–	0.20	0.25	
	BAT 14-090 S	–	0.14	0.15	
	BAT 14-110 S	–	0.10	0.12	
Forward voltage $I_F = 1\text{ mA}$	$V_F$				V
	BAT 14-020 S	–	0.45	–	
	BAT 14-050 S	–	0.47	–	
	BAT 14-090 S	–	0.49	–	
	BAT 14-110 S	–	0.50	–	
$I_F = 10\text{ mA}$	BAT 14-020 S	–	0.55	–	
	BAT 14-050 S	–	0.57	–	
	BAT 14-090 S	–	0.60	–	
	BAT 14-110 S	–	0.65	–	
Single sideband noise figure $F_{IF} = 1.5\text{ dB}, P_{LO} = 0\text{ dBm}, f_{IF} = 10.7\text{ MHz}$	$F_{SSB}$				dB
$f = 3.0\text{ GHz}$	BAT 14-020 S	–	6.0	–	
$f = 6.0\text{ GHz}$	BAT 14-050 S	–	6.5	–	
$f = 9.3\text{ GHz}$	BAT 14-090 S	–	6.5	–	
$f = 16\text{ GHz}$	BAT 14-110 S	–	7.0	–	
Differential forward resistance $I_F = 10\text{ mA}$	$r_f$				$\Omega$
	BAT 14-020 S	–	3.5	–	
	BAT 14-050 S	–	4.0	–	
$I_F = 50\text{ mA}$	BAT 14-090 S	–	7.0	–	
	BAT 14-110 S	–	10.0	–	



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