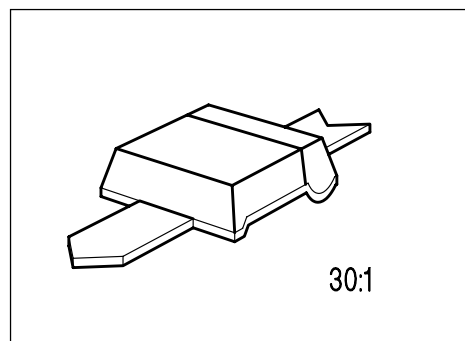


## Silicon Schottky Diodes

## BAT 15- ... S

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



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

Type	Marking	Ordering Code	Pin Configuration	Package <sup>1)</sup>
BAT 15-020 S	–	Q62702-D1262	Pointed cathode 	S
BAT 15-050 S		Q62702-D1271		
BAT 15-090 S		Q62702-D1279		
BAT 15-110 S		Q62702-D1288		

### Maximum Ratings

Parameter	Symbol	Values		Unit
		BAT 15-020 S BAT 15-050 S	BAT 15-090 S BAT 15-110 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  $T_A = 25\text{ }^\circ\text{C}$ , 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 15-020 S		–	0.30	0.35	
BAT 15-050 S		–	0.20	0.25	
BAT 15-090 S		–	0.14	0.15	
BAT 15-110 S		–	0.10	0.12	
Forward voltage $I_F = 1\text{ mA}$	$V_F$				V
BAT 15-020 S		–	0.26	–	
BAT 15-050 S		–	0.28	–	
BAT 15-090 S		–	0.30	–	
BAT 15-110 S		–	0.31	–	
$I_F = 10\text{ mA}$					
BAT 15-020 S		–	0.35	–	
BAT 15-050 S		–	0.39	–	
BAT 15-090 S		–	0.44	–	
BAT 15-110 S		–	0.45	–	
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 15-020 S	–	6.0	–	
$f = 6.0\text{ GHz}$	BAT 15-050 S	–	6.5	–	
$f = 9.3\text{ GHz}$	BAT 15-090 S	–	6.5	–	
$f = 16\text{ GHz}$	BAT 15-110 S	–	7.0	–	
Differential forward resistance $I_F = 10\text{ mA}$	$r_f$				$\Omega$
BAT 15-020 S		–	3.5	–	
BAT 15-050 S		–	4.0	–	
$I_F = 50\text{ mA}$					
BAT 15-090 S		–	7.0	–	
BAT 15-110 S		–	10.0	–	