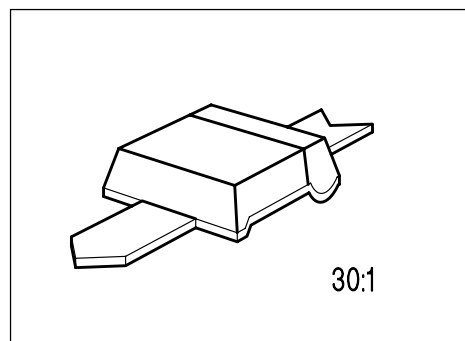


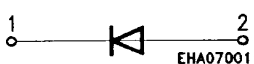
## Silicon PIN Diodes

**BXY 42BA-S**  
**BXY 42BB-S**

- Beam lead version
- Fast switching



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

Type	Marking	Ordering Code	Pin Configuration	Package <sup>1)</sup>
BXY 42BA-S	–	Q62702-X151	Pointed cathode 	S
BXY 42BB-S		Q62702-X159		

### Maximum Ratings

Parameter	Symbol	Values		Unit
		BXY 42BA-S	BXY 42BB-S	
Reverse voltage	$V_R$	50	30	V
Junction temperature	$T_j$	175		°C
Storage temperature range	$T_{stg}$	– 55 ... + 150		
Operating temperature range	$T_{op}$	– 55 ... + 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.	
Breakdown voltage $I_R = 10\text{ }\mu\text{A}$	$V_{(BR)}$	50	–	–	V
Forward voltage $I_F = 50\text{ mA}$	$V_F$	–	1.0	–	
Reverse current $V_R = 40\text{ V}$	$I_R$	–	–	5	nA
Storage time $I_F = 10\text{ mA}$ , $V_R = 10\text{ V}$	$t_s$	–	3	–	ns
Diode capacitance $V_R = 30\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	–	–	0.08	pF
Charge carrier life time $I_F = 10\text{ mA}$ , $I_R = 6\text{ mA}$	$\tau_L$	–	30	–	ns
Forward resistance $f = 100\text{ MHz}$ , $I_F = 10\text{ mA}$	$r_f$	–	1.8	–	$\Omega$

## Electrical Characteristics

at  $T_A = 25\text{ }^\circ\text{C}$ , unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Breakdown voltage $I_R = 10\text{ }\mu\text{A}$	$V_{(BR)}$	30	–	–	V
Forward voltage $I_F = 50\text{ mA}$	$V_F$	–	1.1	–	
Reverse current $V_R = 20\text{ V}$	$I_R$	–	–	5	nA
Storage time $I_F = 10\text{ mA}$ , $V_R = 10\text{ V}$	$t_s$	–	2	–	ns
Diode capacitance $V_R = 20\text{ V}$ , $f = 1\text{ MHz}$	$C_T$	–	–	0.15	pF
Charge carrier life time $I_F = 10\text{ mA}$ , $I_R = 6\text{ mA}$	$\tau_L$	–	20	–	ns
Forward resistance $f = 100\text{ MHz}$ , $I_F = 10\text{ mA}$	$r_f$	–	1.3	–	$\Omega$