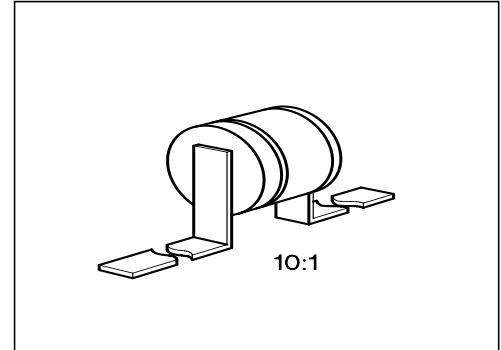


## Silicon PIN Diodes

**BXY 43**

- High-speed switching
- Phase shifting up to 10 GHz
- Power splitter



Type	Marking	Ordering Code	Pin Configuration	Package <sup>1)</sup>
BXY 43A	–	Q62702-X116		T1
BXY 43B		Q62702-X104		
BXY 43C		Q62702-X105		

### Maximum Ratings

Parameter	Symbol	Values			Unit
		BXY 43A	BXY 43B	BXY 43C	
Breakdown voltage	$V_{(BR)}$	150	150	150	V
Forward current	$I_F$	400	500	500	mA
Peak forward current, $t_p = 1 \mu\text{s}$	$I_{FRM}$	10	20	20	A
Total power dissipation	$P_{tot}$	500	600	600	mW
Junction temperature	$T_j$	175			°C
Storage temperature range	$T_{stg}$	– 55 ... + 150			
Operating temperature range	$T_{op}$	– 55 ... + 150			

### Thermal Resistance

Parameter	Symbol	BXY 43A	BXY 43B	BXY 43C	Unit
Junction - case	$R_{th\,JC}$	80	70	70	K/W

<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

Reverse current $V_R = 100\text{ V}$	$I_R$	–	5	–	nA
Forward voltage $I_F = 100\text{ mA}$	$V_F$	–	1	–	V

### AC Characteristics

Diode capacitance $V_R = 50\text{ V}, f = 1\text{ MHz}$	$C_T$				pF
BXY 43A	–	0.19	0.20		
BXY 43B	–	0.25	0.28		
BXY 43C	–	0.35	0.40		
Forward resistance $I_F = 10\text{ mA}, f = 100\text{ MHz}$	$r_f$				$\Omega$
BXY 43A	–	1.2	–		
BXY 43B	–	1.0	–		
BXY 43C	–	1.0	–		
Charge carrier life time $I_F = 10\text{ mA}, I_R = 6\text{ mA}$	$\tau_L$				ns
BXY 43A	–	250	–		
BXY 43B	–	350	–		
BXY 43C	–	350	–		
Storage time $I_F = 10\text{ mA}, V_R = 10\text{ V}$	$t_s$				
BXY 43A	–	15	–		
BXY 43B	–	20	–		
BXY 43C	–	25	–		
Case series inductance	$L_s$	–	0.3	–	nH
Preaging at forward current for 168 hours	$I_L$				A
BXY 43A	–	0.2	–		
BXY 43B	–	0.2	–		
BXY 43C	–	0.5	–		
Gross and fine leakage test	–	–	$10^{-8}$	–	$\frac{\text{torr} \cdot 1}{\text{s}}$