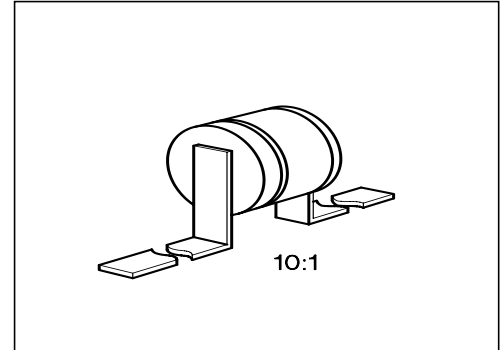


Silicon PIN Diodes

BXY 43

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



Type	Marking	Ordering Code	Pin Configuration	Package ¹⁾
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, $t_p = 1 \mu s$	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

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

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				Ω
BXY 43A	–	1.2	–		
BXY 43B	–	1.0	–		
BXY 43C	–	1.0	–		
Charge carrier life time $I_F = 10\text{ mA}, I_R = 6\text{ mA}$	τ_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}	–	$\frac{\text{torr} \cdot 1}{\text{s}}$



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