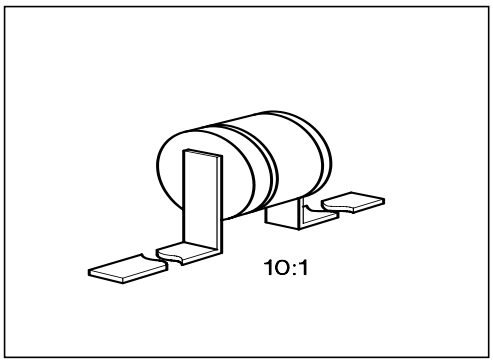
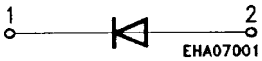
SIEMENS

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	Cathode: black dot,	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 µs	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

Junction - case	$R_{th\ JC}$	80	70	70	K/W

1) For detailed information see chapter Package Outlines.

Electrical Characteristics
at T_A = 25 °C, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current V_R = 100 V	I_R	–	5	–	nA
Forward voltage I_F = 100 mA	V_F	–	1	–	V
AC Characteristics					
Diode capacitance V_R = 50 V, f = 1 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 mA, f = 100 MHz	r_f				Ω
BXY 43A		–	1.2	–	
BXY 43B		–	1.0	–	
BXY 43C		–	1.0	–	
Charge carrier life time I_F = 10 mA, I_R = 6 mA	τ_L				ns
BXY 43A		–	250	–	
BXY 43B		–	350	–	
BXY 43C		–	350	–	
Storage time I_F = 10 mA, V_R = 10 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}	–	$\frac{\text{torr.1}}{\text{– s}}$