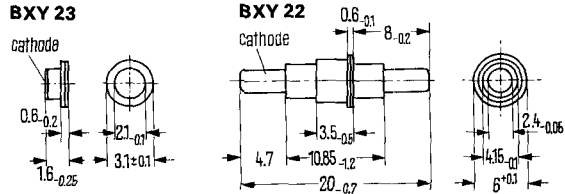


BXY 22 G, BXY 22 H, BXY 22 J, BXY 23

Depletion-layer varactor

Are capacitance diodes for tuning, switching and modulator applications up into the GHz range.

Type	Order number
BXY 22 G	Q 60223-Y 22-G
BXY 22 H	Q 60223-Y 22-H
BXY 22 J	Q 60223-Y 22-J
BXY 23	Q 60223-Y 23



Weight approx. 0.1 g
Dimensions in mm

Weight approx. 1.4 g

	BXY 22 G BXY 22 H BXY 22 J	BXY 23	
Maximum ratings ($T_{amb} = 25^\circ\text{C}$)			
Reverse voltage	V_R 30	30	V
Forward current	I_F 200	200	mA
Junction temperature	T_j 150	150	$^\circ\text{C}$
Storage temperature	T_s -55 to +175	-55 to +175	$^\circ\text{C}$
Power dissipation	P_{tot} 1.2	1.2	W
Thermal resistance			
between junction and case	$R_{thJcase} \leq 70$	≤ 70	K/W
between junction and static ambient air	$R_{thJamb} \leq 150$	≤ 150	K/W
Static characteristics			
Reverse current			
($V_R = 30\text{ V}$; $T_{amb} = 25^\circ\text{C}$)	$I_R \leq 10$	≤ 10	nA
Reverse current			
($V_R = 30\text{ V}$; $T_{amb} = 60^\circ\text{C}$)	$I_R \leq 100$	≤ 100	nA
Forward voltage			
($I_F = 200\text{ mA}$; $T_{amb} = 25^\circ\text{C}$)	$V_F \leq 1$	≤ 1	V
Dynamic characteristics ($T_{amb} = 25^\circ\text{C}$)			
Case capacitance	$C_{case} 0.85$	0.35	pf
Case series inductance	$L_s 2$	0.4	nH
Temperature dependence of the diode ($V_R = 3\text{ V}$)	$TK_{CD} 4 \cdot 10^{-4}$	$4 \cdot 10^{-4}$	$1/^\circ\text{C}$
Capacitance ratio ($V_R = 3\text{ to }25\text{ V}$; $f = 1\text{ MHz}$)	$C_{D3} 2\text{ to }2.5$	2 to 2.5	-
Voltage dependence of the junction capacitance ($V_R = 3\text{ to }25\text{ V}$)	$n^1) 2\text{ to }2.3$	2 to 2.3	-
Series resistance ($V_R = 3\text{ V}$; $f = 2.4\text{ GHz}$)	$R_s < 1.5$	0.9	Ω

	BXY 22 G	BXY 22 H	BXY 22 J	BXY 23	
Diode capacitance					
($V_R = 15\text{ V}$; $f = 1\text{ MHz}$) $C_D^2)$	10 (8.8 to 11.2)	12 (10.8 to 13.2)	14.5 (13 to 16)	-	pf
($V_R = 3\text{ V}$; $f = 1\text{ MHz}$) $C_D^2)$	-	-	-	12 (10.7 to 13.3)	pf

¹⁾ $C_j(V_{R1}) = \left(\frac{V_{R2} + V_D}{V_{R1} + V_D} \right) \frac{1}{n}$; $V_D \approx 0.7\text{ V}$

²⁾ $C_D = C_j + C_{case}$