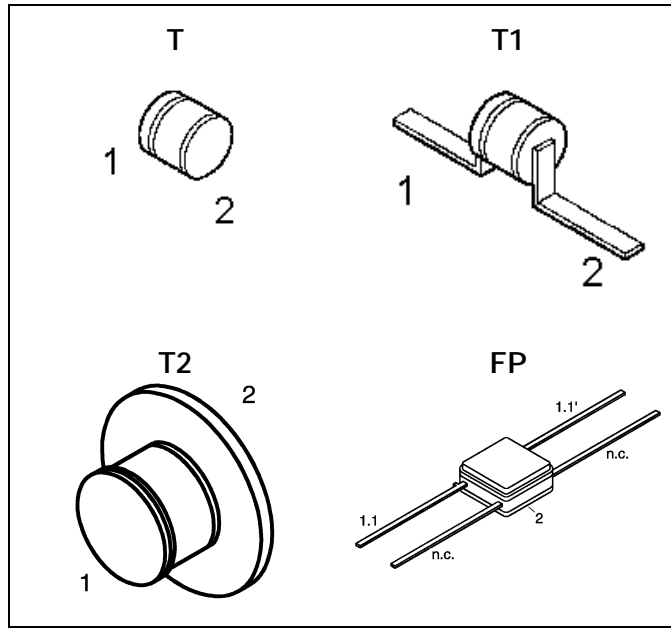


HiRel Silicon PIN Diode

- **HiRel Discrete and Microwave Semiconductor**
- Current controlled RF resistor for RF attenuators and switches
- High reverse voltage
- Hermetically sealed microwave package
- **ESA Space Qualified**
ESA/SCC Detail Spec. No.: 5513/030
Type Variant No.s 04 to 07



ESD: Electrostatic discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code	Pin Configuration	Package
BXY44-T (ql)	-	see below		T
BXY44-T1 (ql)				T1
BXY44-T2 (ql)				T2
BXY44-FP (ql)				FP

(ql) Quality Level:	P: Professional Quality,	Ordering Code:	Q62702X148
	H: High Rel Quality,	Ordering Code:	on request
	S: Space Quality,	Ordering Code:	on request
	ES: ESA Space Quality,	Ordering Code:	Q62702X162

(see order instructions for ordering example)

Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse Voltage	V_R	200	V
Forward Current	I_F	400	mA
Power Dissipation ¹⁾	P_{tot}	500	mW
Operating Temperature Range	T_{op}	-55 to +150	°C
Storage Temperature Range	T_{stg}	-65 to +175	°C
Soldering Temperature ²⁾	T_{sol}	+235	°C
Junction Temperature	T_j	150	°C
Thermal Resistance Junction-Case	$R_{th(j-c)}$		K/W
BXY44-T		110	
BXY44-T1		140	
BXY44-T2		110	
BXY44-FP		110	

Notes.:

- 1.) For BXY44-T; -T2, -FP: At $T_{CASE} = 95$ °C. For $T_{CASE} > 95$ °C derating is required.
For BXY44-T1: At $T_{CASE} = 80$ °C. For $T_{CASE} > 80$ °C derating is required.
- 2.) During 5 sec. maximum. The same terminal shall not be resoldered until 5 minutes have elapsed.

Electrical Characteristics

at $T_A=25$ °C; unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse Current 1 $V_{R1}=200V$	I_{R1}	-	-	100	nA
Reverse Current 2 $V_{R2}=100V$	I_{R2}	-	-	5	nA
Forward Voltage $I_F=100mA$	V_F	-	1,0	1,05	V

Electrical Characteristics (continued)

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
AC Characteristics					
Total Capacitance $V_R=50V$; $f=1MHz$ BXY44-T, -T1, -T2 BXY44-FP	C_T	- -	0,20 0,50	0,35 0,75	pF
Forward Resistance 1 $f=100MHz$, $I_{F1}=10\mu A$ BXY44-T, -T1, -T2 BXY44-FP	R_{F1}	800 700	900 900	1300 1200	Ω
Forward Resistance 2 $f=100MHz$, $I_{F2}=1mA$ BXY44-T, -T1, -T2 BXY44-FP	R_{F2}	12 11	16 20	28 27	Ω
Forward Resistance 3 $f=100MHz$, $I_{F3}=10mA$ BXY44-T, -T1, -T2 BXY44-FP	R_{F3}	2,0 2,0	3,0 3,8	5,0 5,0	Ω
Minority Carrier Lifetime $I_F=10mA$, $I_R=6mA$, $I_R=3mA$	τ_L	300	800	-	ns

Order Instructions:

Full type variant including package variant and quality level must be specified by the orderer. For *HiRel* Discrete and Microwave Semiconductors the ordering code specifies device family and quality level only.

Ordering Form:

Ordering Code: Q.....
BXY44- (x) (ql)
(x): Package Variant
(ql): Quality Level

Ordering Example:

Ordering Code: Q62702X162
BXY44-T1 ES
For BXY44 in T1 Package; ESA Space Quality Level

Further Informations:

See our WWW-Pages:

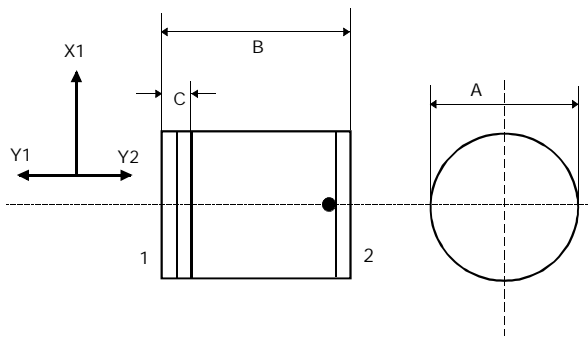
- Discrete and RF-Semiconductors (Small Signal Semiconductors)
www.infineon.com/products/discrete/hirel.htm

- *HiRel* Discrete and Microwave Semiconductors
www.infineon.com/products/discrete/hirel.htm

Please contact also our marketing division :

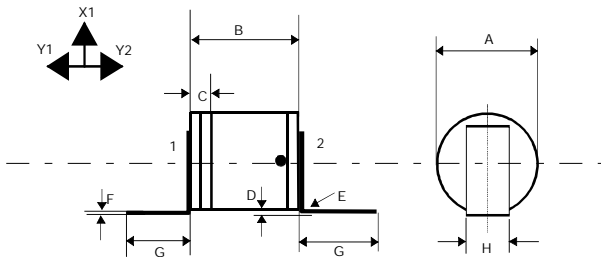
Tel.: ++89 234 24480
Fax.: ++89 234 28438
e-mail: martin.wimmers@infineon.com
Address: Infineon Technologies Semiconductors,
High Frequency Products Marketing,
P.O.Box 801709,
D-81617 Munich

T Package



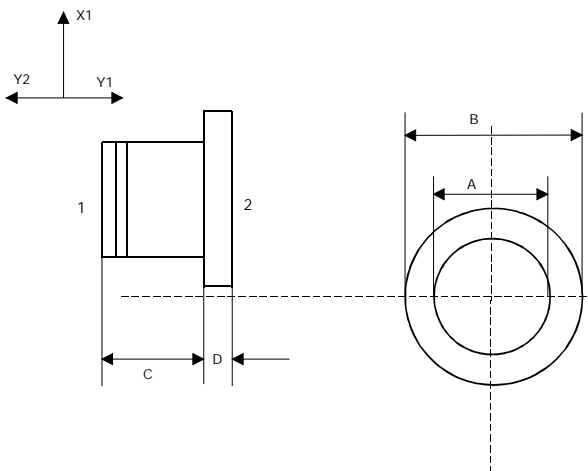
Symbol	Millimetre	
	min	max
A	1,30	1,45
B	1,15	1,35
C	-	0,40

T1 Package



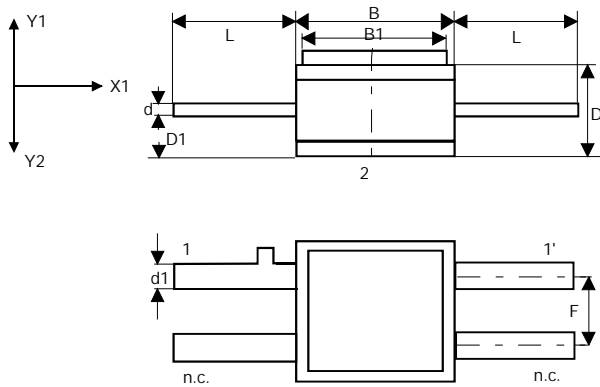
Symbol	Millimetre	
	min	max
A	1,30	1,45
B	1,15	1,35
C	-	0,40
D	0,10	0,50
E	-	0,30
F	0,06	0,10
G	5,50	-
H	0,40	0,60

T2 Package



Symbol	Millimetre	
	min	max
∅A	1,30	1,45
∅B	2,0	2,2
C	0,60	1,25
D	0,08	0,20

FP Package



Symbol	Millimetre	
	min	max
B	3,10	3,55
B1	3,00	3,30
D	1,30	1,70
D1	0,55	0,65
d	0,10	0,15
d1	0,25	0,40
F	2,40	2,60
L	5,50	-

Published by Infineon Technologies Semiconductors, High Frequency Products Marketing, P.O.Box 801709, D-81617 Munich.

Infineon Technologies AG 1998. All Rights Reserved.

As far as patents or other rights of third parties are concerned, liability is only assumed for components per se, not for applications, processes and circuits implemented within components or assemblies.

The information describes the type of component and shall not be considered as assured characteristics.

Terms of delivery and rights to change design reserved.

For questions on technology, delivery and prices please contact the Offices of Semiconductor Group in Germany or the Infineon Technologies Companies and Representatives worldwide (see address list).

Due to technical requirements components may contain dangerous substances. For information on the type in question please contact your nearest Infineon Technologies Office, Semiconductor Group.

Infineon Technologies Semiconductors is a certified CECC and QS9000 manufacturer (this includes ISO 9000).

This datasheet has been downloaded from:

www.DatasheetCatalog.com

Datasheets for electronic components.



LittleDiode supplies new, hard to find or obsolete electronic components and semiconductors all over the world.

With over two million different components listed you are sure to find the part you need.

Feel free to visit us today at our online store:

LittleDiode.com

Looking forward to providing you with the best possible service.