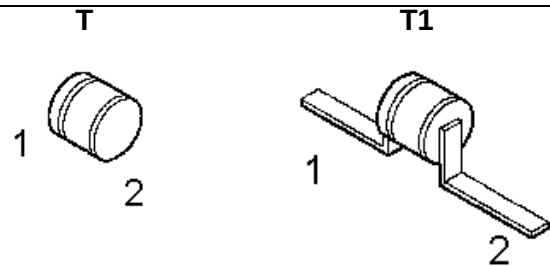
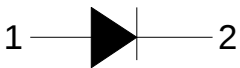
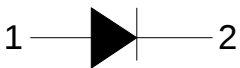


HiRel Silicon PIN Diode

- **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

(ql) Quality Level:

- P: Professional Quality
- H: High Rel Quality
- S: Space Quality
- ES: ESA Space Quality

(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	

Notes.:

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

Electrical Characteristics

at $T_A=25\text{°C}$; unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

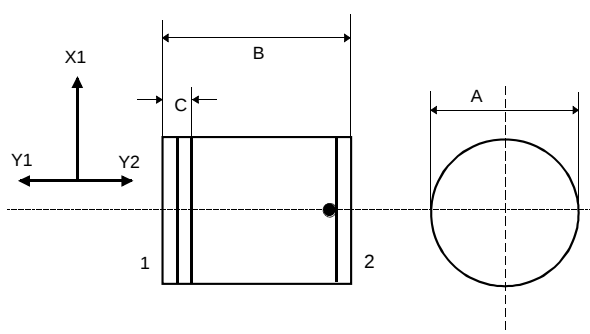
DC Characteristics

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)

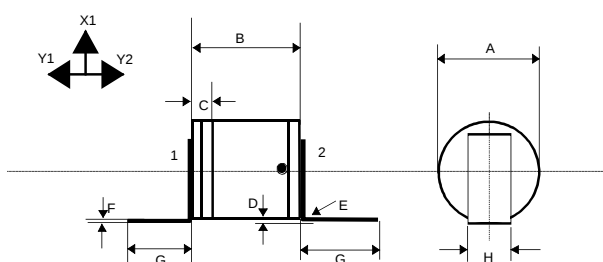
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
AC Characteristics					
Total Capacitance V _R =50V; f=1MHz BXY44-T, -T1	C _T	-	0,20	0,35	pF
Forward Resistance 1 f=100MHz, I _{F1} =10μA BXY44-T, -T1	R _{F1}	800	900	1300	Ω
Forward Resistance 2 f=100MHz, I _{F2} =1mA BXY44-T, -T1	R _{F2}	12	16	28	Ω
Forward Resistance 3 f=100MHz, I _{F3} =10mA BXY44-T, -T1	R _{F3}	2,0	3,0	5,0	Ω
Minority Carrier Lifetime I _F =10mA, I _R =6mA, I _R =3mA	τ _L	300	800	-	ns

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

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