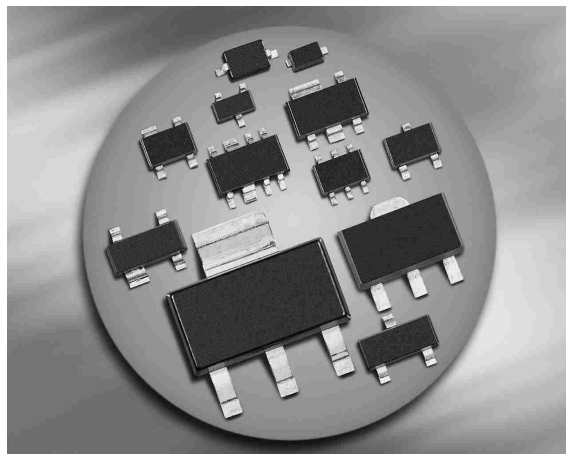
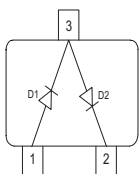


Silicon RF Switching Diode

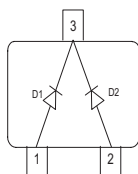
- Low-loss VHF / UHF switch above 10 MHz
- PIN diode with low forward resistance
- Pb-free (RoHS compliant) package



BAT18-04



BAT18-05



Type	Package	Configuration	L_S (nH)	Marking
BAT18-04	SOT23	series	1.8	AUs
BAT18-05	SOT23	common cathode	1.8	ASs

Maximum Ratings at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	35	V
Forward current	I_F	100	mA
Junction temperature	T_j	150	$^\circ\text{C}$
Operating temperature range	T_{op}	-55 ... 125	
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾ BAT18-04, BAT18-05	R_{thJS}	≤ 290	K/W

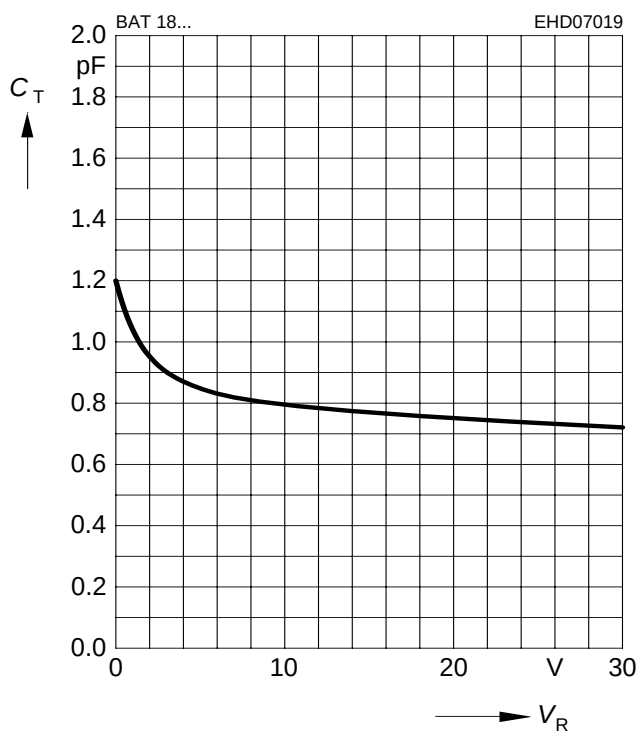
¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current $V_R = 20\text{ V}$ $V_R = 20\text{ V}, T_A = 60\text{ }^{\circ}\text{C}$	I_R	- -	- -	20 200	nA
Forward voltage $I_F = 100\text{ mA}$	V_F	-	0.92	1.2	V
AC Characteristics					
Diode capacitance $V_R = 20\text{ V}, f = 1\text{ MHz}$	C_T	-	0.75	1	pF
Forward resistance $I_F = 5\text{ mA}, f = 100\text{ MHz}$	r_f	-	0.4	0.7	Ω
Charge carrier life time $I_F = 10\text{ mA}, I_R = 6\text{ mA}$, measured at $I_R = 3\text{ mA}$, $R_L = 100\text{ }\Omega$	τ_{rr}	-	120	-	ns
I-region width	W_I	-	3	-	μm

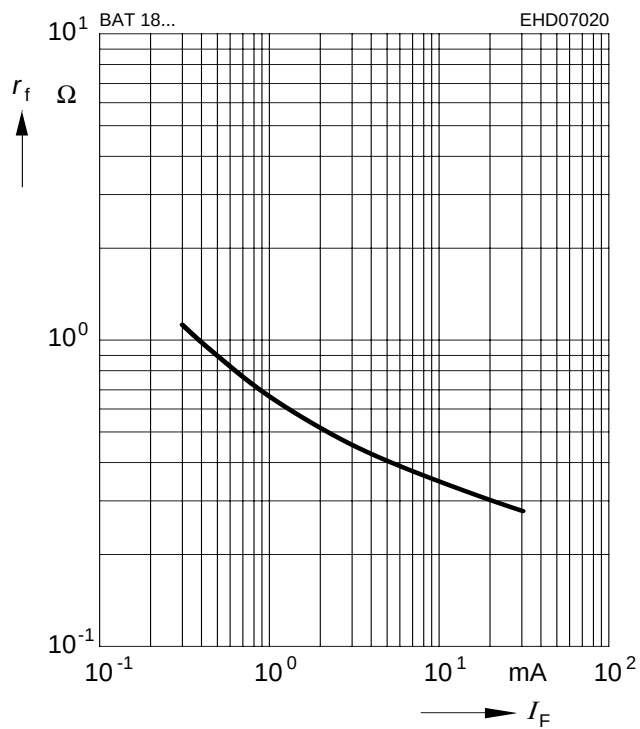
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



Forward resistance $r_f = f(I_F)$

$f = 100\text{MHz}$

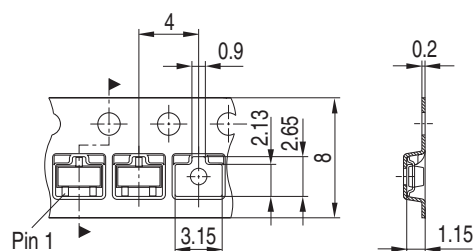




Technical drawing of a stepped shaft. The drawing shows a shaft with two steps. The top view shows a diameter of 0.8 for the top section and 0.9 for the bottom section. The side view shows a total length of 1.3, with a section of 0.8 for the top step and 0.9 for the bottom section. The bottom view shows a diameter of 0.8 for the left section and 1.2 for the right section. The side view also shows a diameter of 0.9 for the right section.

The diagram shows a top-down view of a BCW66 LED package. It is a rectangular component with four pins. The top pin is labeled 'Pin 1'. The package has a central rectangular area containing the text 'EHS' and '65'. To the right of this area, the text '2005, June' and 'Date code (YM)' is shown. Above the package, the 'Infineon' logo is displayed, with the word 'Manufacturer' below it. Below the package, the text 'BCW66' and 'Type code' is shown.

Reel ø180 mm = 3.000 Pieces/Reel
Reel ø330 mm = 10.000 Pieces/Reel



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