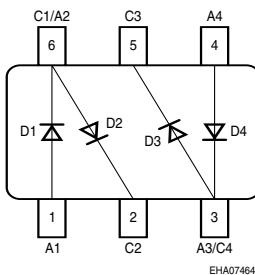
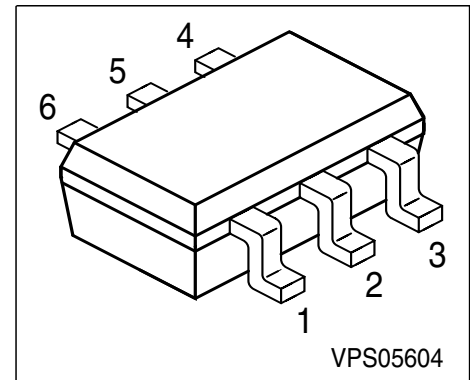


Silicon PIN Diode

Preliminary data

- Low-loss VHF / UHF switch above 10 MHz
- PIN diode with low forward resistance



Type	Marking	Pin Configuration						Package
BAT 18-04S	AVs	1=A1	2=C2	3=A3/C4	4=A4	5=A3	6=C1/A2	SOT-363

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	35	V
Forward current	I_F	100	mA
Operating temperature range	T_{op}	-55 ... 150	°C
Storage temperature	T_{stg}	-55 ... 150	

Thermal Resistance

Junction - ambient ¹⁾	R_{thJA}	≤ tbd	K/W
Junction - soldering point	R_{thJS}	≤ tbd	

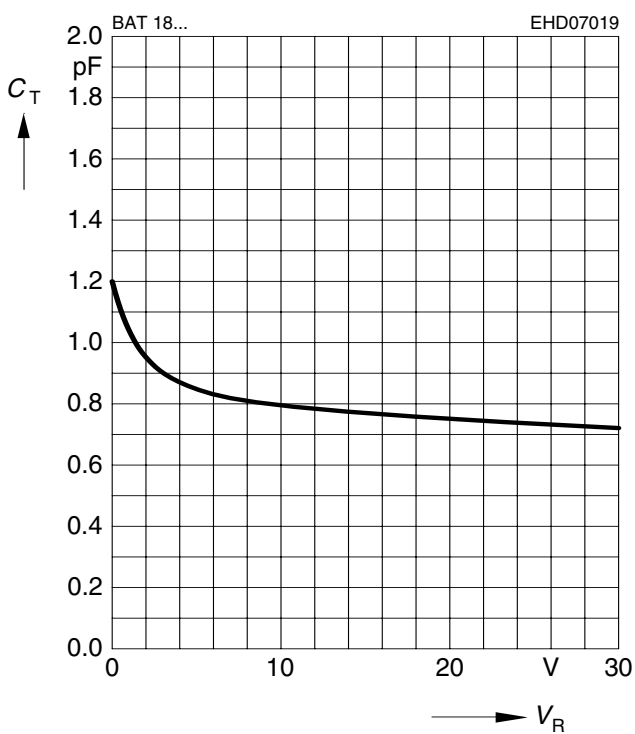
1) Package mounted on alumina 15mm x 16.7mm x 0.7mm

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current $V_R = 20\text{ V}$	I_R	-	-	20	nA
Reverse current $V_R = 20\text{ V}, T_A = 60\text{ }^\circ\text{C}$	I_R	-	-	200	μA
Forward voltage $I_F = 50\text{ mA}$	V_F	-	0.88	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
Series inductance	L_S	-	1.4	-	nH

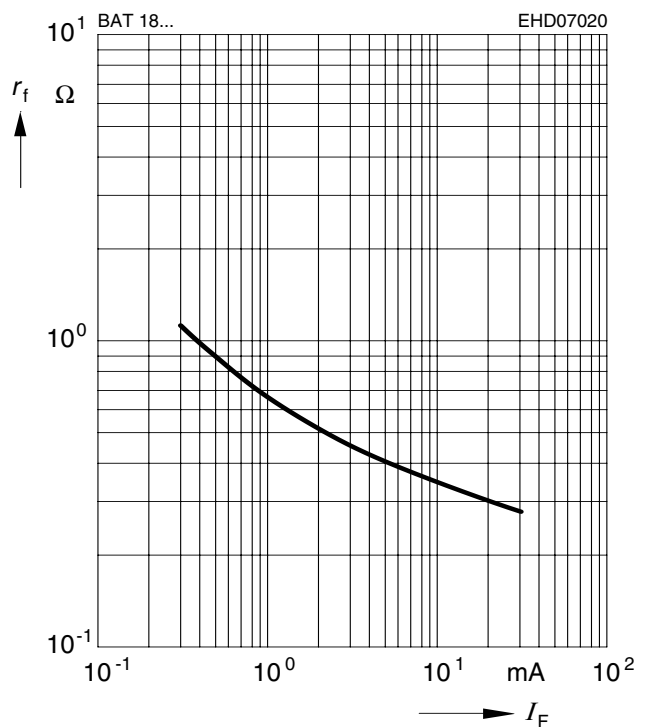
Diode capacitance $C_T = f(V_R)$

$f = 1\text{ MHz}$



Forward resistance $r_f = f(I_F)$

$f = 100\text{ MHz}$



Forward current $I_F = f(V_F)$

