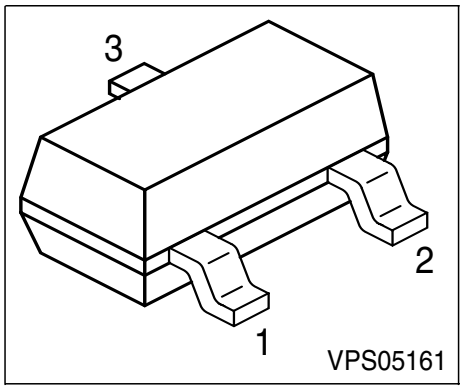
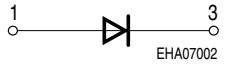
Silicon RF Switching Diode

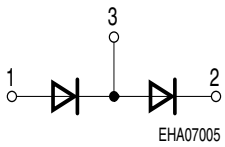
- Low-loss VHF / UHF switch above 10 MHz
- PIN diode with low forward resistance



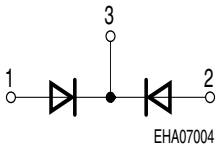
BAT 18



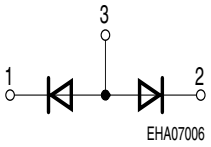
BAT 18-04



BAT 18-05



BAT 18-06



Type	Marking	Pin Configuration			Package
BAT 18	A2s	1 = A	2 n.c.	3 = C	SOT-23
BAT 18-04	AUs	1 = A1	2 = C2	3 = C1/A2	SOT-23
BAT 18-05	ASs	1 = A1	2 = A2	3 = C1/2	SOT-23
BAT 18-06	ATs	1 = C1	2 = C2	3 = A1/2	SOT-23

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}	≤ 450	K/W

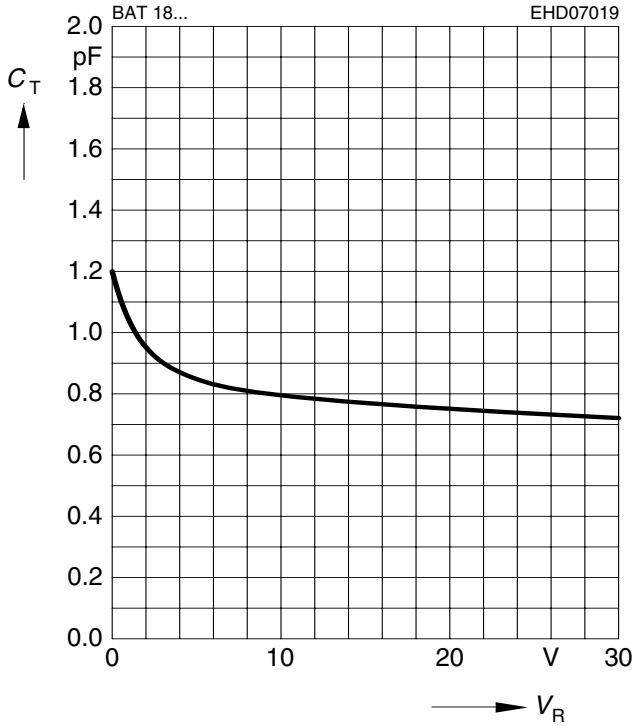
1) Package mounted on alumina 15mm x 16.7mm x 0.7mm

Electrical Characteristics at T_A = 25 °C, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Reverse current V_R = 20 V	I_R	-	-	20	nA
Reverse current V_R = 20 V, T_A = 60 °C	I_R	-	-	200	
Forward voltage I_F = 100 mA	V_F	-	0.38	1.2	mV
AC characteristics					
Diode capacitance V_R = 20 V, f = 1 MHz	C_T	-	0.75	1	pF
Forward resistance I_F = 5 mA, f = 100 MHz	r_f	-	0.4	0.7	Ω
Series inductance	L_S	-	2	-	nH

Diode capacitance $C_T = f(V_R)$

f = 1MHz



Forward resistance $r_f = f(I_F)$

f = 100MHz