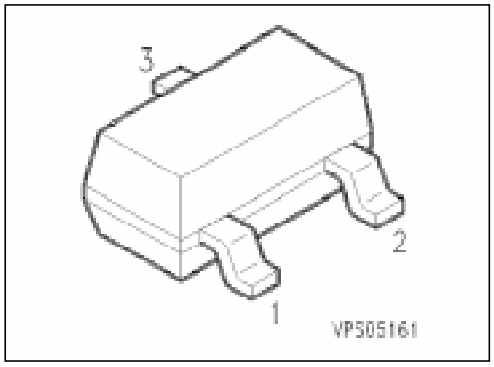
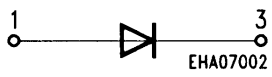
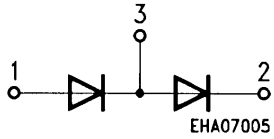
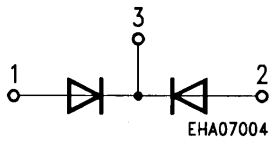
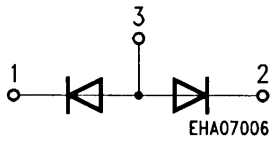
SIEMENS

Silicon RF Switching Diode

BAT 18 ...

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



Type	Marking	Ordering Code	Pin Configuration	Package[1)]
BAT 18	A2	Q62702-A787		SOT 23
BAT 18-04	AU	Q62702-A938		
BAT 18-05	AS	Q62702-A940		
BAT 18-06	AT	Q62702-A942		

Maximum Ratings per Diode

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	35	V
Forward current	I_F	100	mA
Operating and storage temperature range	T_{op} T_{stg}	– 55 … + 150	˚C

Thermal Resistance

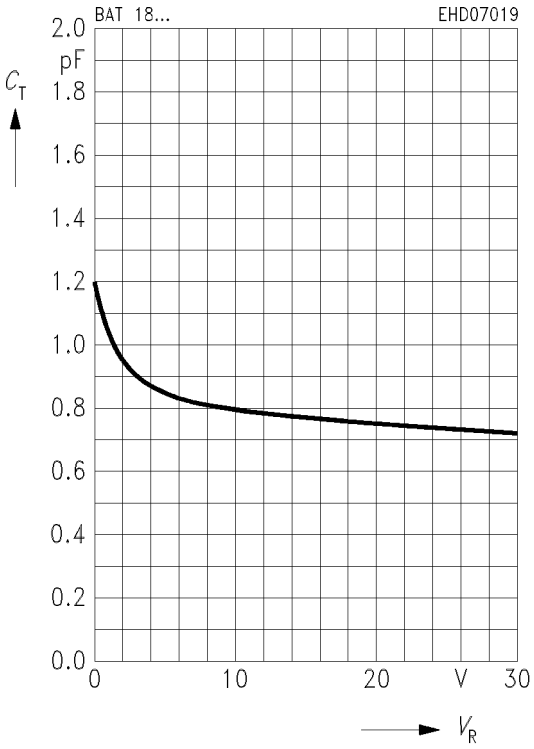
Junction - ambient	$R_{th\ JA}$	≤ 450	K/W

1) For detailed information see chapter Package Outlines.
2) Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Forward voltage I_F = 100 mA	V_F	–	0.38	1.2	V
Reverse current V_R = 20 V V_R = 20 V, T_A = 60 °C	I_R	 – –	 – –	 20 200	nA
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= 1 MHz



Forward resistance $r_f = f(I_F)$
f= 100 MHz

