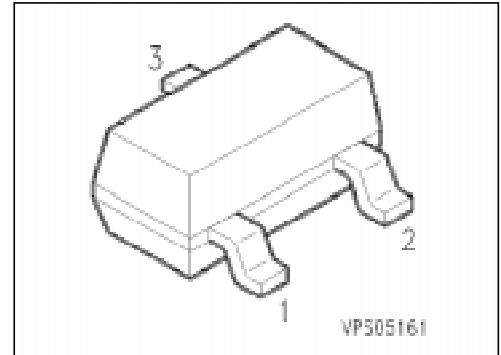


## Silicon RF Switching Diode

BAT 18 ...

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



Type	Marking	Ordering Code	Pin Configuration	Package <sup>1)</sup>
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
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<sup>1)</sup> For detailed information see chapter Package Outlines.

<sup>2)</sup> Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

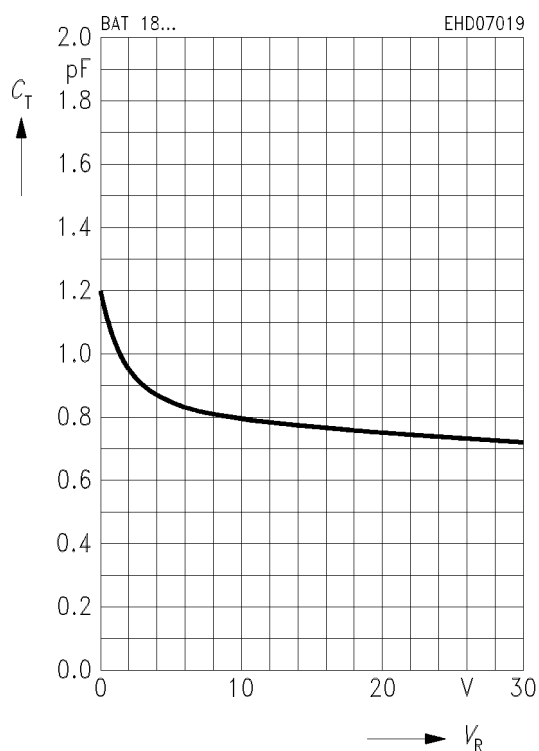
### Electrical Characteristics per Diode

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Forward voltage $I_F = 100\text{ mA}$	$V_F$	–	0.38	1.2	V
Reverse current $V_R = 20\text{ V}$ $V_R = 20\text{ V}, T_A = 60\text{ }^\circ\text{C}$	$I_R$	–	–	20 200	nA
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	$\Omega$
Series inductance	$L_s$	–	2	–	nH

### Diode capacitance $C_T = f(V_R)$

$f = 1\text{ MHz}$



### Forward resistance $r_f = f(I_F)$

$f = 100\text{ MHz}$

