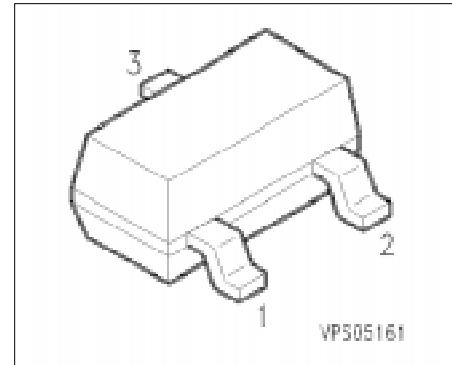


Silicon Schottky Diode

BAT 17...

- For mixer applications in the VHF/UHF range
- For high-speed switching



Type	Ordering Code (tape and reel)	Pin Configuration			Marking	Package
		1	2	3		
BAT 17	Q62702-A504	A	–	C	53	SOT-23
BAT 17-04	Q62702-A775	A	C	C/A	54	
BAT 17-05	Q62702-A776	A	A	C/C	55	
BAT 17-06	Q62702-A777	C	C	A/A	56	

Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	4	V
Forward current	I_F	130	mA
Total power dissipation $T_S \leq 60 \text{ }^\circ\text{C}$	P_{tot}	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Operating temperature range	T_{op}	– 55 ... + 150	$^\circ\text{C}$
Storage temperature range	T_{stg}	– 55 ... + 150	$^\circ\text{C}$

Thermal Resistance

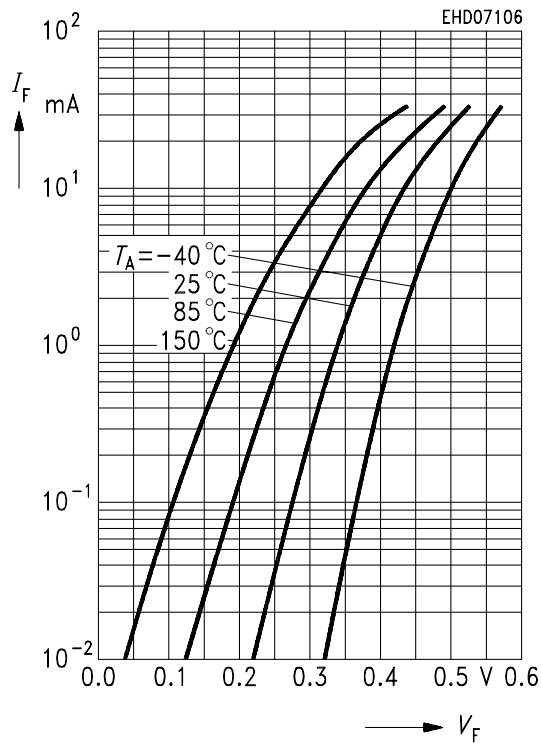
Junction-ambient ¹⁾	$R_{th JA}$	≤ 750	K/W
Junction-soldering point	$R_{th JS}$	≤ 590	K/W

1) Package mounted on an epoxy pcb 40 mm x 40 mm x 1.5 mm/1cm² Cu.

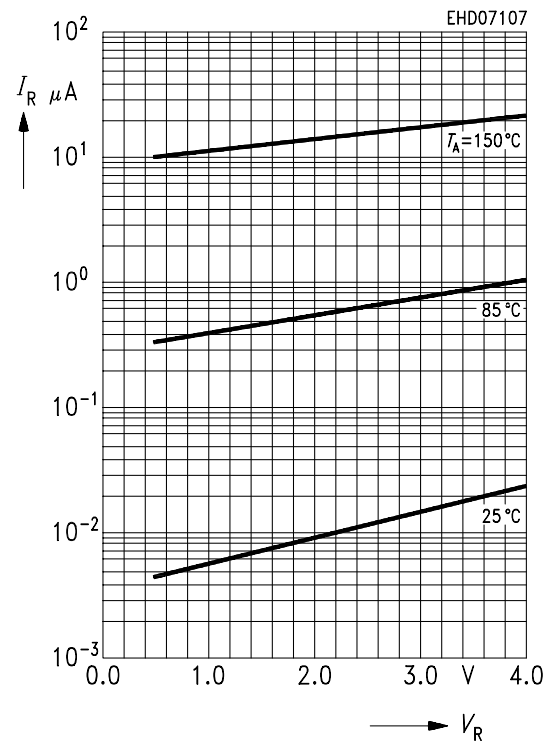
Electrical Characteristicsat $T_A = 25\text{ °C}$, unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
DC Characteristics					
Breakdown voltage $I_R = 10\ \mu\text{A}$	$V_{(BR)}$	4	–	–	V
Reverse current $V_R = 3\ \text{V}$ $V_R = 3\ \text{V}, T_A = 60\text{ °C}$ $V_R = 4\ \text{V}$	I_R	–	–	0.25 1.25 10	μA
Forward voltage $I_F = 0.1\ \text{mA}$ $I_F = 1\ \text{mA}$ $I_F = 10\ \text{mA}$	V_F	200 250 350	275 340 425	350 450 600	mV
Diode capacitance $V_R = 0\ \text{V}, f = 1\ \text{MHz}$	C_T	0.4	0.55	0.75	pF
Differential forward resistance $I_F = 5\ \text{mA}, f = 10\ \text{kHz}$	r_S	–	8	15	Ω

Forward current $I_F = f(V_F)$

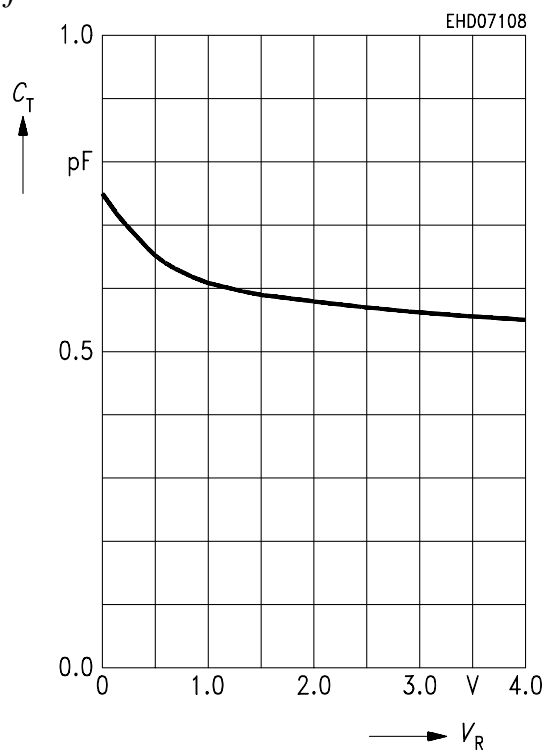


Reverse current $I_R = f(V_R)$



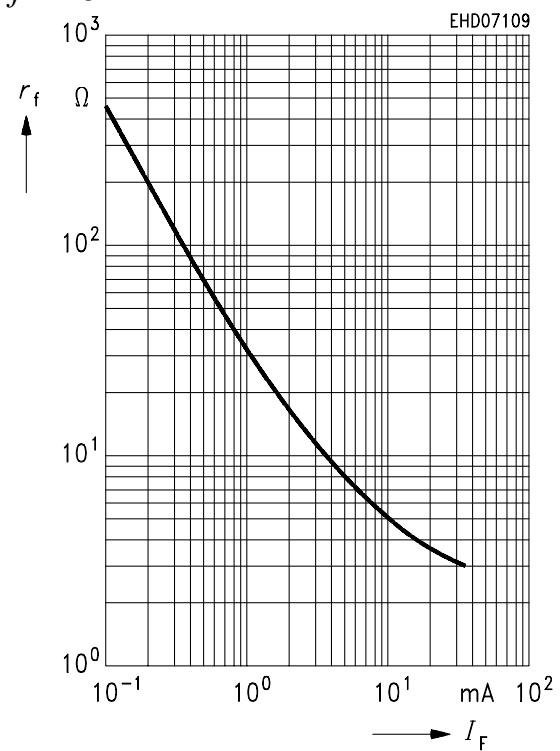
Diode capacitance $C_T = f(V_R)$

$f = 1 \text{ MHz}$



Differential forward resistance $R_F = f(I_F)$

$f = 10 \text{ kHz}$



Forward current $I_F = f(T_A; T_S^*)$

*Package mounted on aluminum

