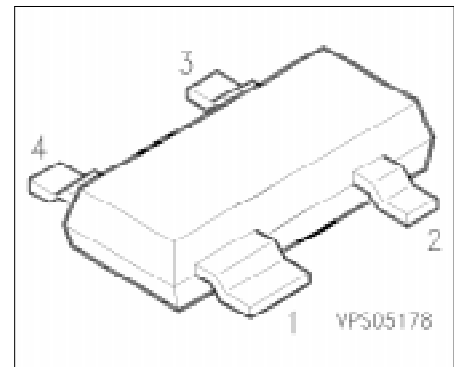


## Silicon Schottky Diode

**BAT 17-07**

- 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	4		
BAT 17-07	Q62702-A918	C1	C2	A2	A1	57	SOT-143

### Maximum Ratings

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

### Thermal Resistance

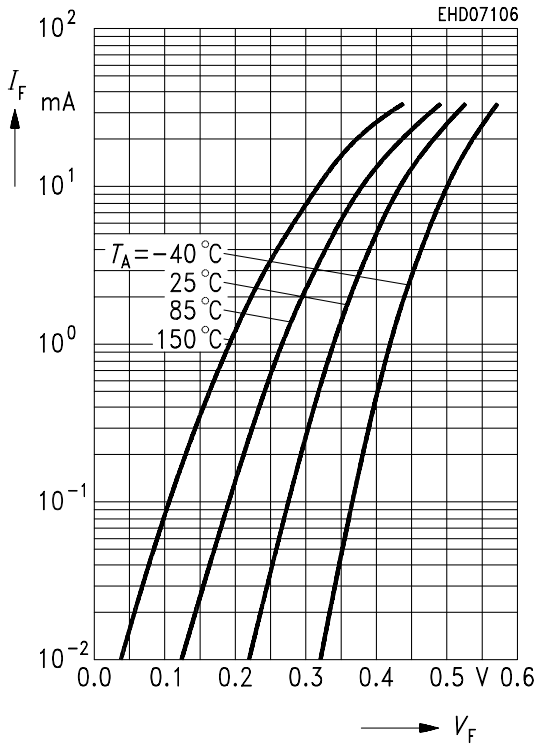
Junction-ambient <sup>1)</sup>	$R_{\text{th JA}}$	$\leq 750$	K/W
Junction-soldering point	$R_{\text{th JS}}$	$\leq 590$	K/W

1) Package mounted on epoxy pcb 40 mm x 40 mm x 1.5 mm/1cm<sup>2</sup> Cu.

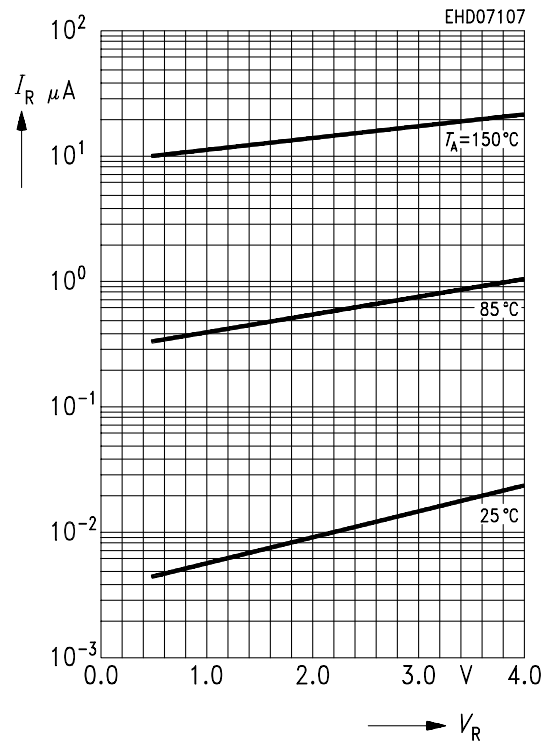
**Electrical Characteristics**at  $T_A = 25\text{ °C}$ , unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
<b>DC Characteristics</b>					
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	$\mu\text{A}$
Forward voltage $I_F = 0.1\ \text{mA}$ $I_F = 1\ \text{mA}$ $I_F = 10\ \text{mA}$	$V_F$	200 750 350	275 340 425	350 450 600	mV
Diode capacitance $V_R = 0\ \text{V}, f = 1\ \text{MHz}$	$C_T$	–	0.75	1	pF
Differential forward resistance $I_F = 5\ \text{mA}, f = 10\ \text{kHz}$	$r_S$	–	8	15	$\Omega$

Forward current  $I_F = f(V_F)$

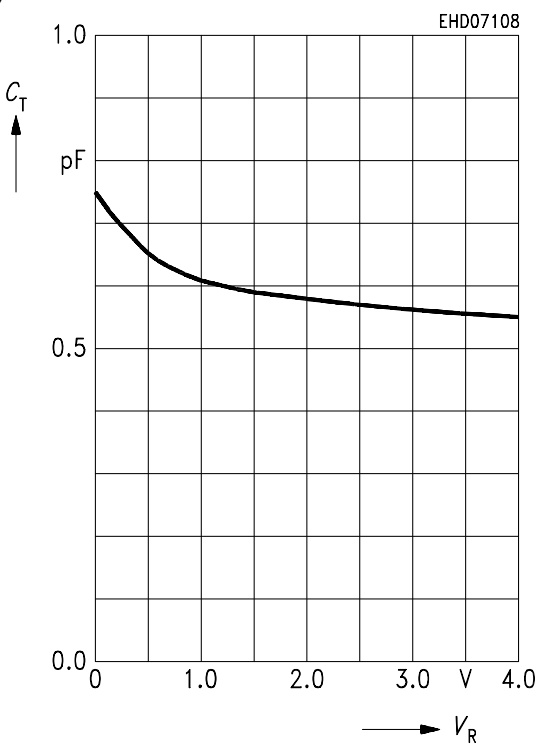


Reverse current  $I_R = f(V_R)$



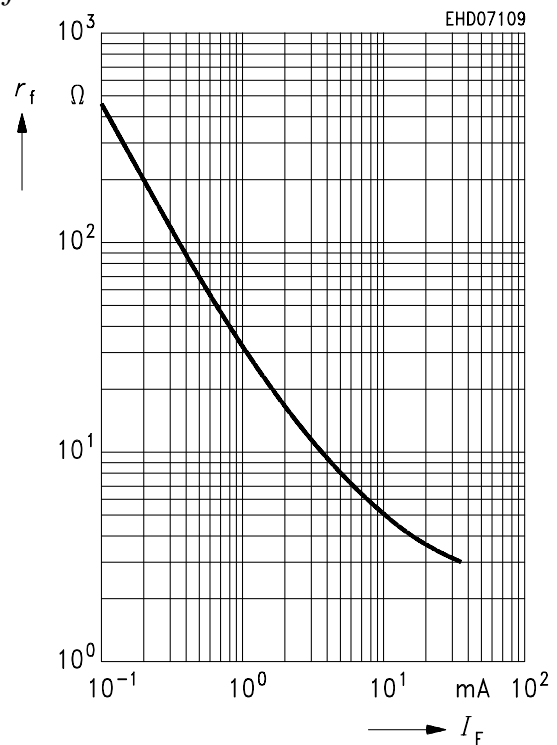
Diode capacitance  $C_T = f(V_R)$

$f = 1 \text{ MHz}$



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

