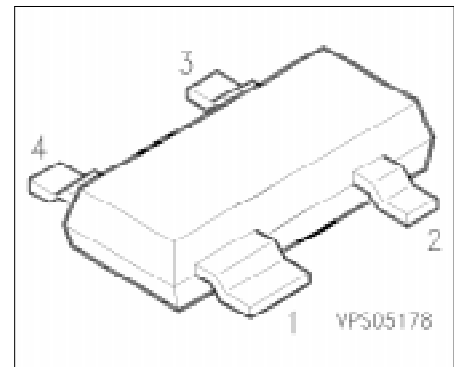


Silicon Schottky Diode

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_{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⁾	$R_{\text{th JA}}$	≤ 750	K/W
Junction-soldering point	$R_{\text{th JS}}$	≤ 590	K/W

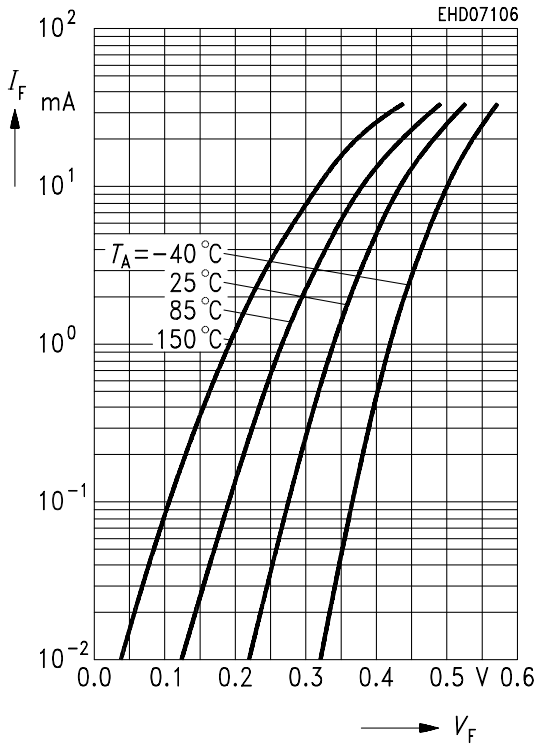
1) Package mounted on epoxy pcb 40 mm x 40 mm x 1.5 mm/1cm² Cu.

Electrical Characteristics

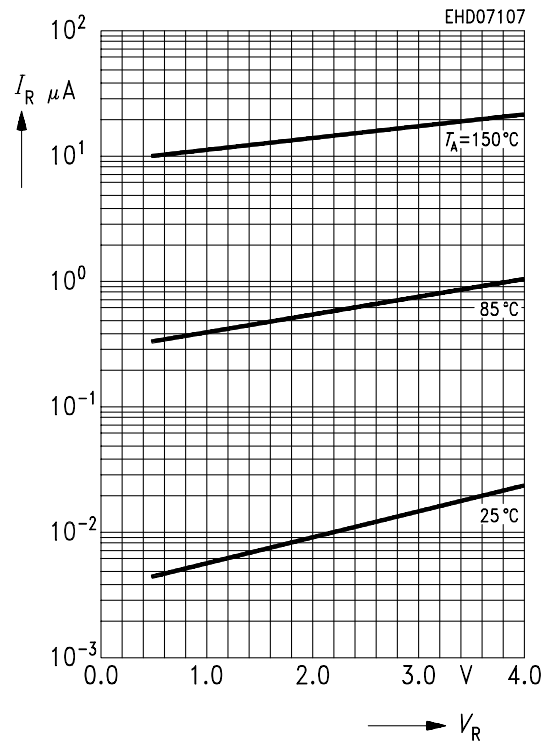
at $T_A = 25\text{ °C}$, unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
DC Characteristics					
Breakdown voltage $I_R = 10\text{ }\mu\text{A}$	$V_{(BR)}$	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	200 750 350	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	Ω

Forward current $I_F = f(V_F)$

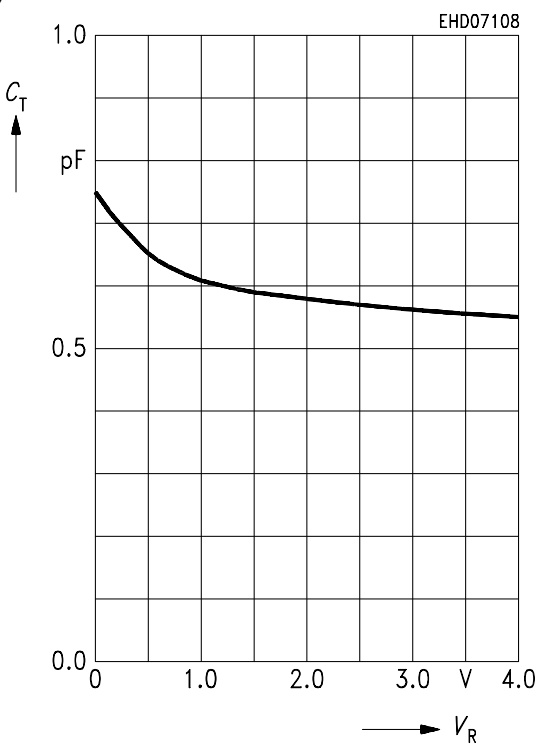


Reverse current $I_R = f(V_R)$



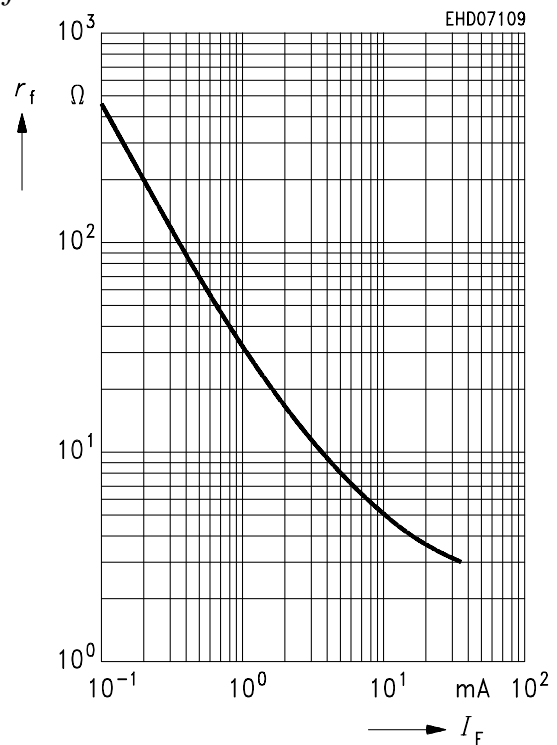
Diode capacitance $C_T = f(V_R)$

$f = 1 \text{ MHz}$



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

