SIEMENS
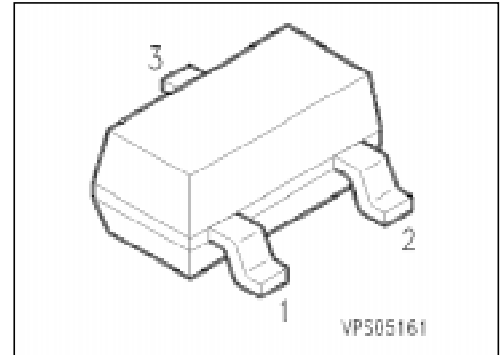
Silicon Schottky Diodes   **BAT 68 …**

● For mixer applications in the VHF/UHF range

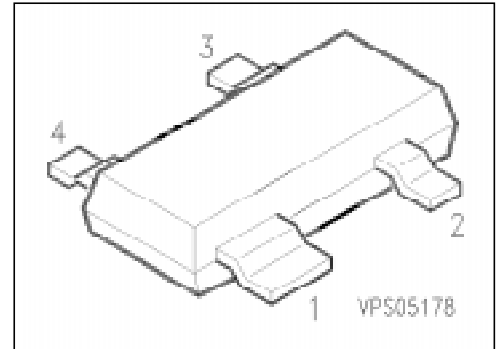● For high-speed switching

ESD: **E**lectro**s**tatic **d**ischarge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package[1]
BAT 68	83	Q62702-A926		SOT-23
BAT 68-04	84	Q62702-A4		
BAT 68-05	85	Q62702-A15		
BAT 68-06	86	Q62702-A19		

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[1] For detailed information see chapter Package Outlines.

● For mixer applications in the VHF/UHF range

● For high-speed switching

ESD: **E**lectro**s**tatic **d**ischarge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package[1]
BAT 68-07	87	Q62702-A44	4 ▷ 1 3 ▷ 2 EHA07008	SOT-143

Maximum Ratings per Diode

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	8	V
Forward current	I_F	130	mA
Power dissipation, $T_S \leq 60\ °C$	P_{tot}	150	mW
Junction temperature	T_j	150	°C
Storage temperature range	T_{stg}	$-55 … +150$	

Thermal Resistance

Junction - ambient[2]	$R_{th\ JA}$	≤ 750	K/W
Junction - soldering point	$R_{th\ JS}$	≤ 590	

[1] For detailed information see chapter Package Outlines.
[2] Package mounted on alumina 15 mm $\times$ 16.7 mm $\times$ 0.7 mm.

Electrical Characteristics per Diode

at $T_A = 25$ °C, unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Breakdown voltage $I_R = 10$ µA	V_{BR}	8	–	–	V
Reverse current $V_R = 1$ V $V_R = 1$ V, $T_A = 60$ °C	I_R	 – –	 – –	 0.1 1.2	µA
Forward voltage[1] $I_F = 1$ mA $I_F = 10$ mA	V_F	 – –	 – –	 340 500	mV
Diode capacitance $V_R = 0, f = 1$ MHz	C_T	–	–	1	pF
Differential forward resistance $I_F = 5$ mA, $f = 10$ kHz	r_f	–	–	10	Ω

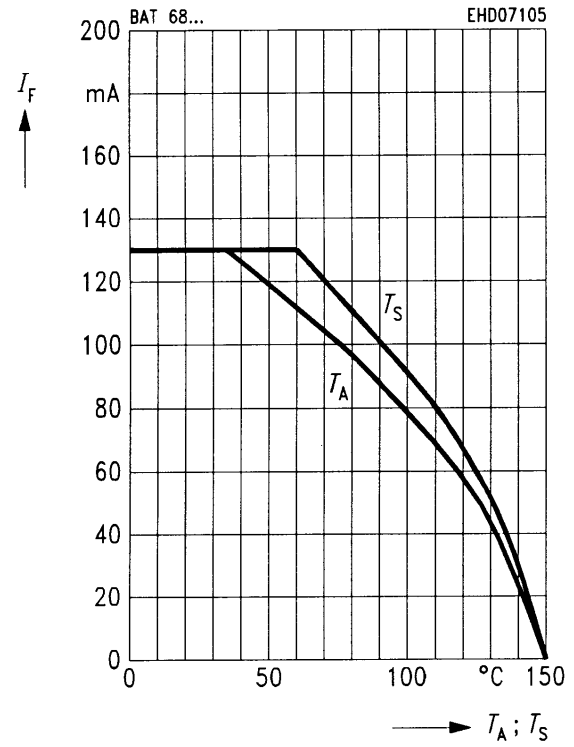[1] Forward voltage matching, types -04, -05, -06, -07 $I_F = 10$ mA, $\Delta V_F = 20$ mV max.
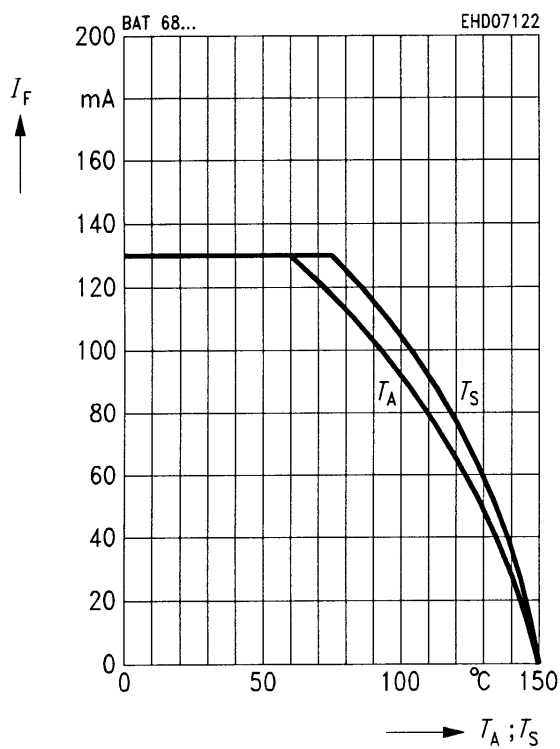
Forward current $I_F = f(V_F)$
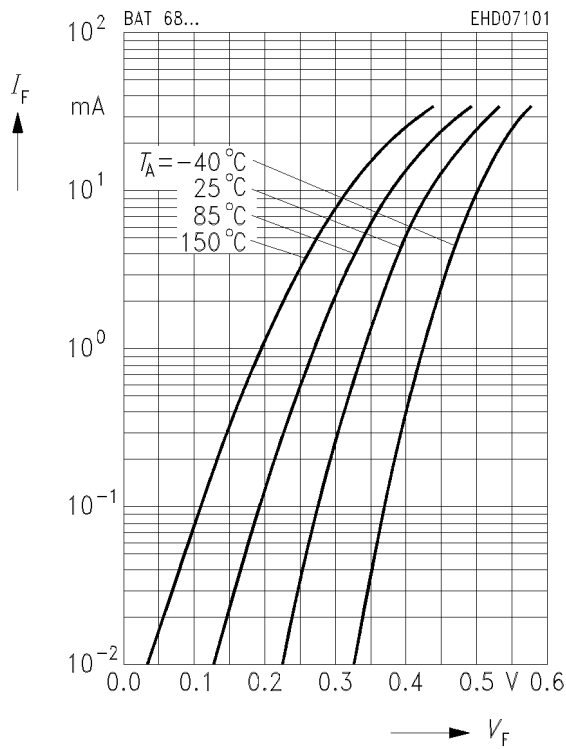
Forward current $I_F = f(T_S, T_A*)$
*Package mounted on alumina
BAT 68-04, -05, -06, -07

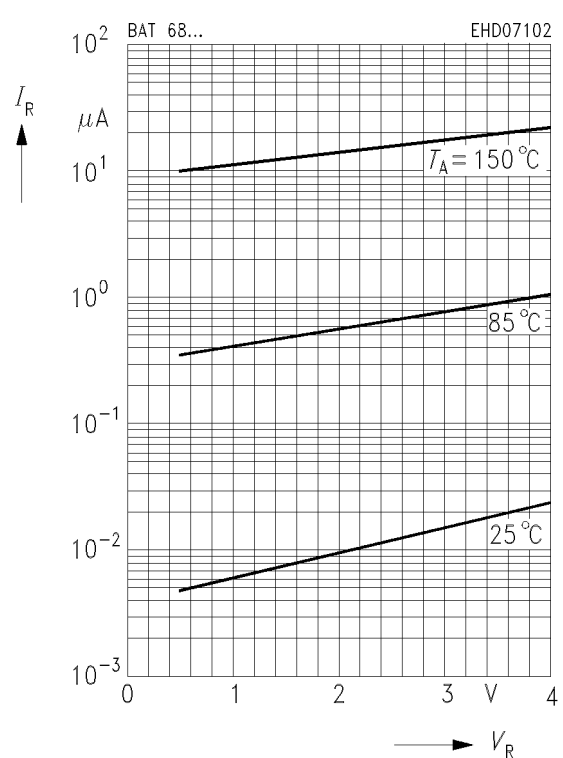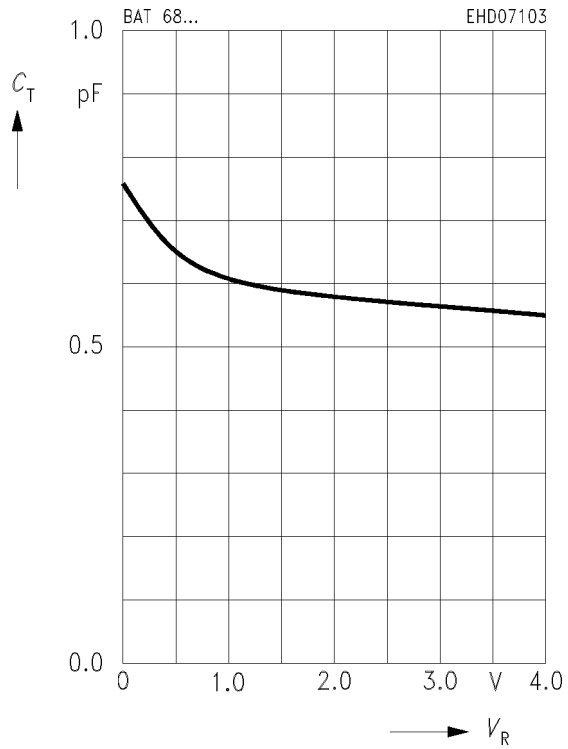## Forward current $I_F = f(T_S; T_A*)$
*Package mounted on alumina
BAT 68

Reverse current $I_R = f(V_R)$

Diode capacitance $C_T = f(V_R)$
$f = 1$ MHz

Differential forward resistance $r_f = f(I_F)$
$f = 10$ kHz