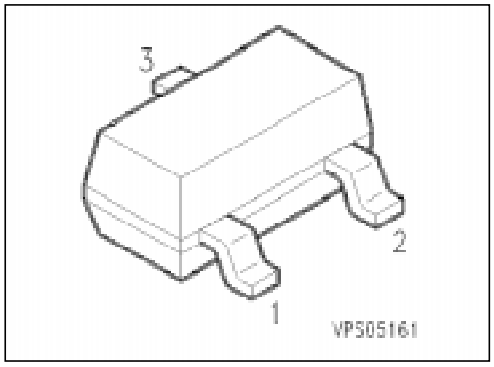
SIEMENS

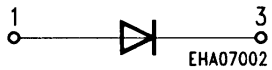
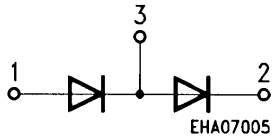
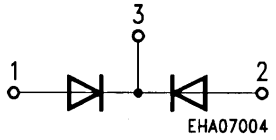
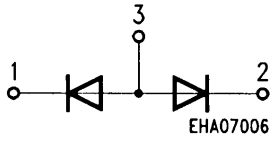
Silicon Schottky Diodes

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		

1) For detailed information see chapter Package Outlines.

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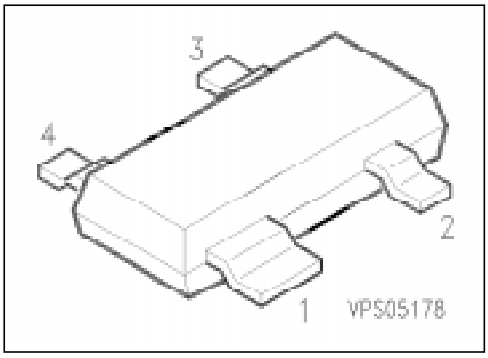
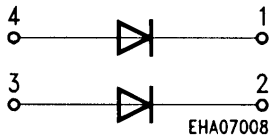


ESD: **E**lectro**s**tatic **d**ischarge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package[1)]
BAT 68-07	87	Q62702-A44		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	

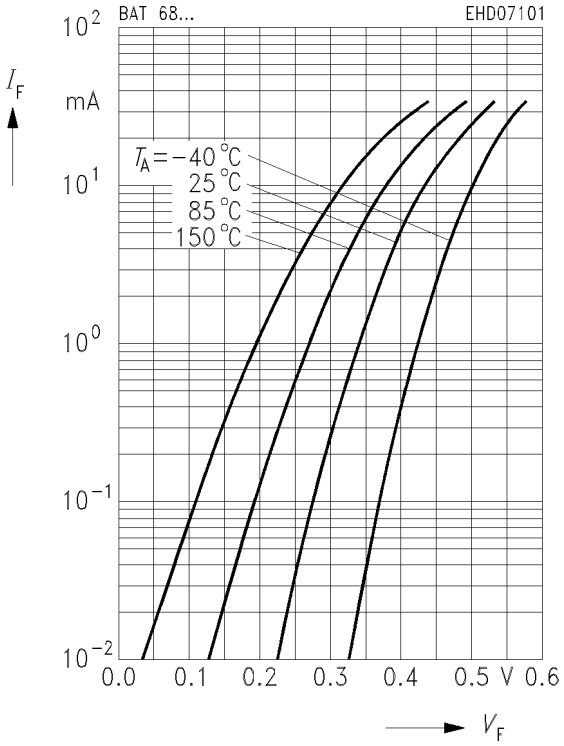
1) For detailed information see chapter Package Outlines.
2) Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

Electrical Characteristics per Diode
at T_A = 25 ˚C, unless otherwise specified.

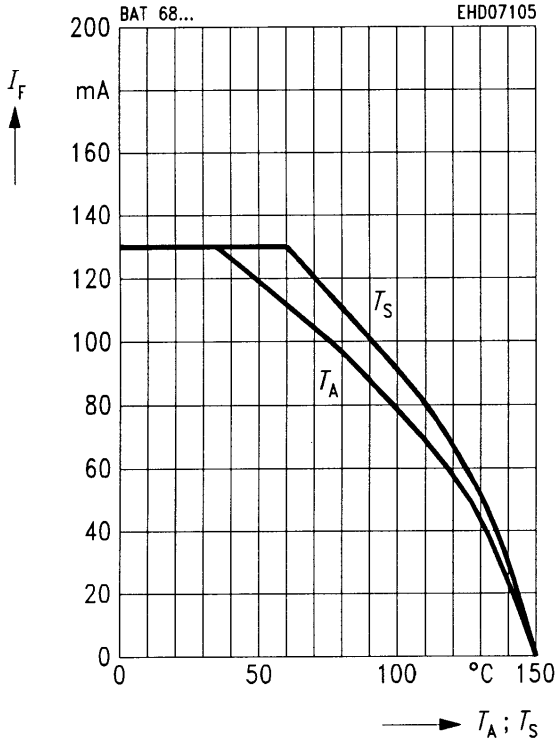
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Breakdown voltage I_R = 10 µA	V_{BR}	8	–	–	V
Reverse current V_R = 1 V V_R = 1 V, T_A = 60 ˚C	I_R	 – –	 – –	 0.1 1.2	µA
Forward voltage[1)] I_F = 1 mA I_F = 10 mA	V_F	 – –	 – –	 340 500	mV
Diode capacitance V_R = 0, f = 1 MHz	C_T	–	–	1	pF
Differential 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, ΔV_F = 20 mV max.

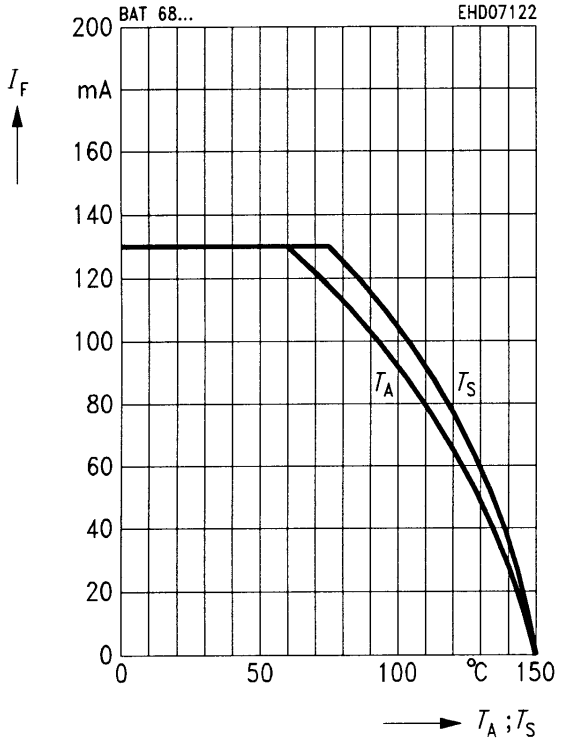
Forward current $I_F = f(V_F)$



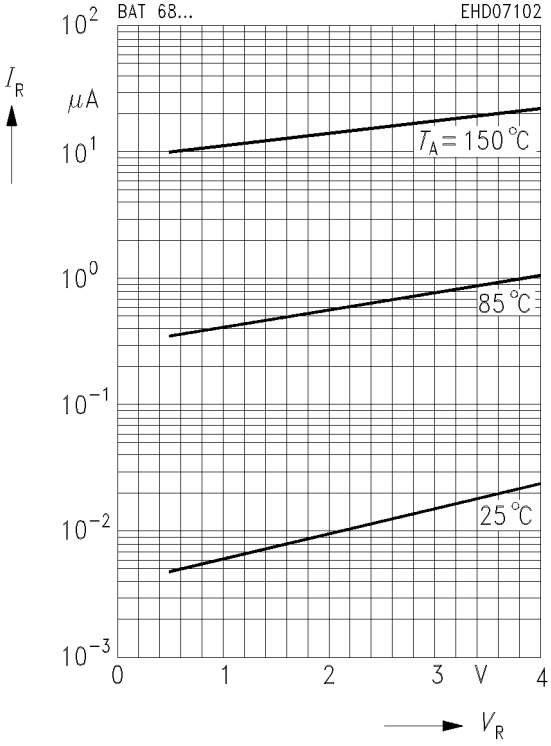
Forward current $I_F = f(T_S, T_A^*)$
*Package mounted on alumina
BAT 68-04, -05, -06, -07



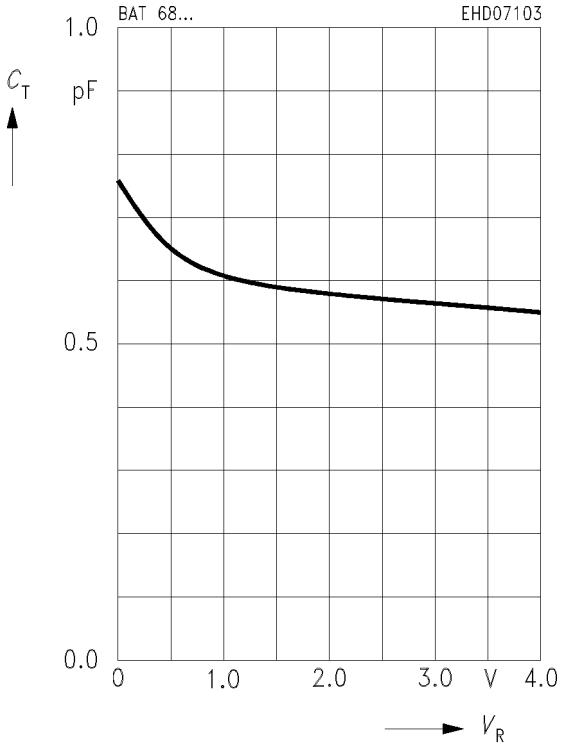
Forward current $I_F = f(T_S; T_A^*)$
*Package mounted on alumina
BAT 68



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