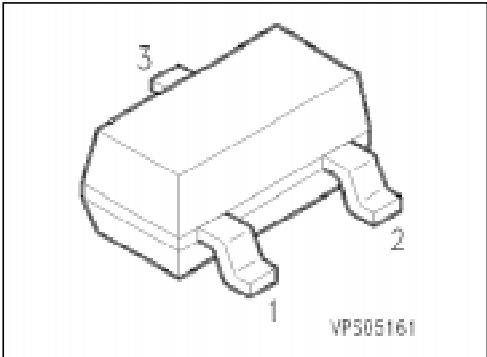


Silicon Schottky Diodes

BAT 68 ...

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

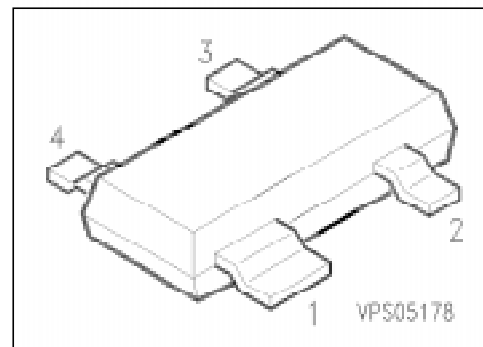


ESD: Electrostatic discharge sensitive device, observe handling precautions!

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.

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



ESD: Electrostatic discharge 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, $T_s \leq 60^\circ\text{C}$	P_{tot}	150	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	- 55 ... + 150	

Thermal Resistance

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

¹⁾ For detailed information see chapter Package Outlines.

²⁾ Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

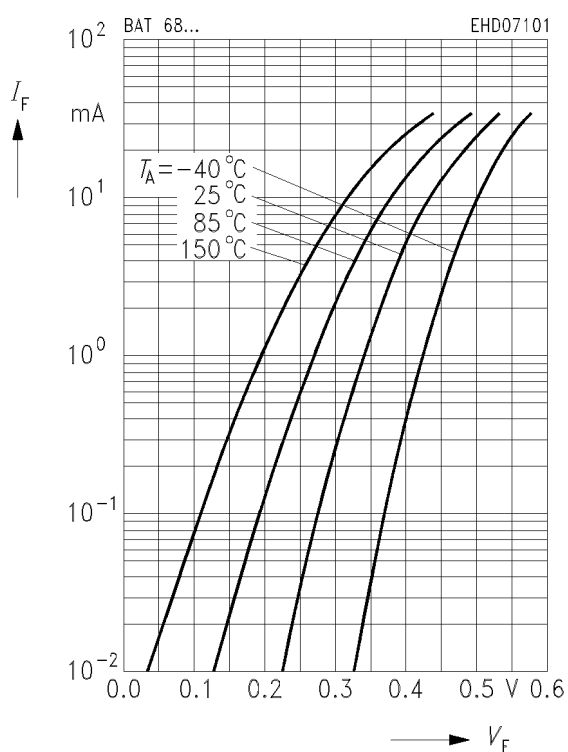
Electrical Characteristics per Diode

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

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

¹⁾ Forward voltage matching, types -04, -05, -06, -07 $I_F = 10\text{ mA}$, $\Delta V_F = 20\text{ mV max.}$

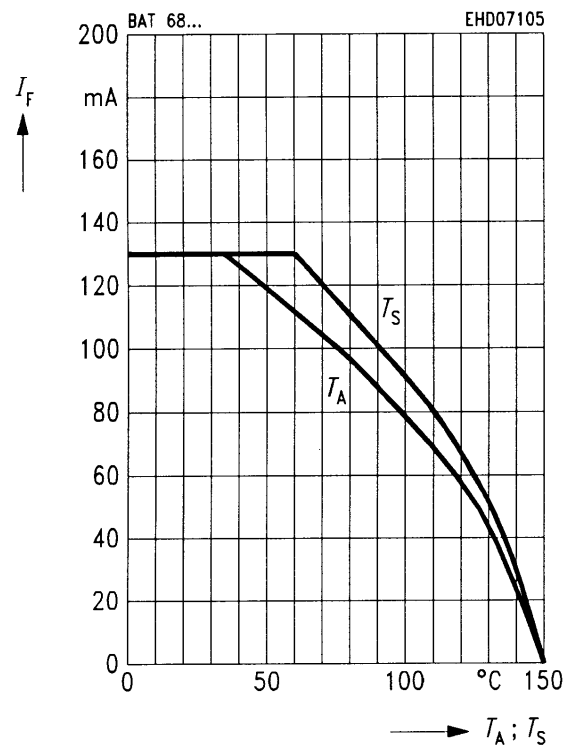
Forward current $I_F = f(V_F)$



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

*Package mounted on alumina

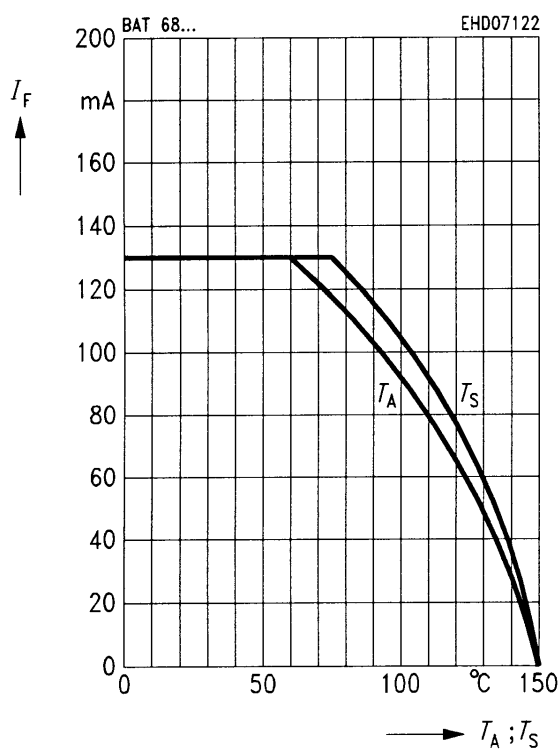
BAT 68-04, -05, -06, -07



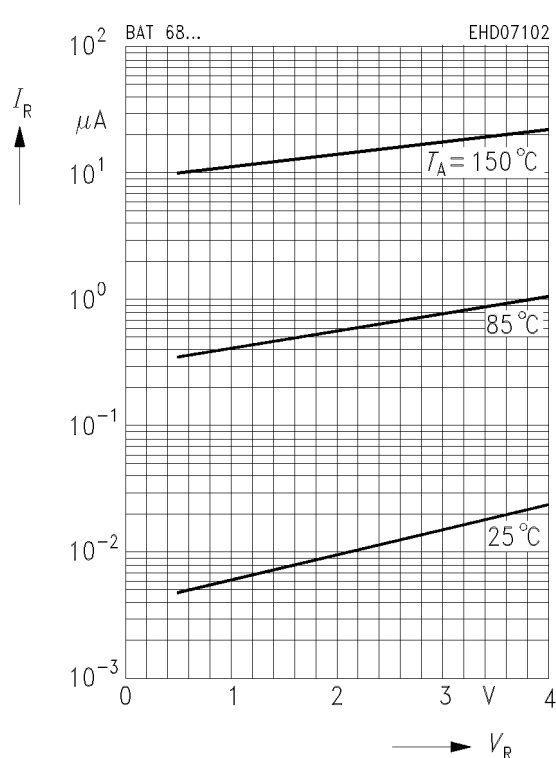
Forward current $I_F = f(T_S; T_A^*)$

*Package mounted on alumina

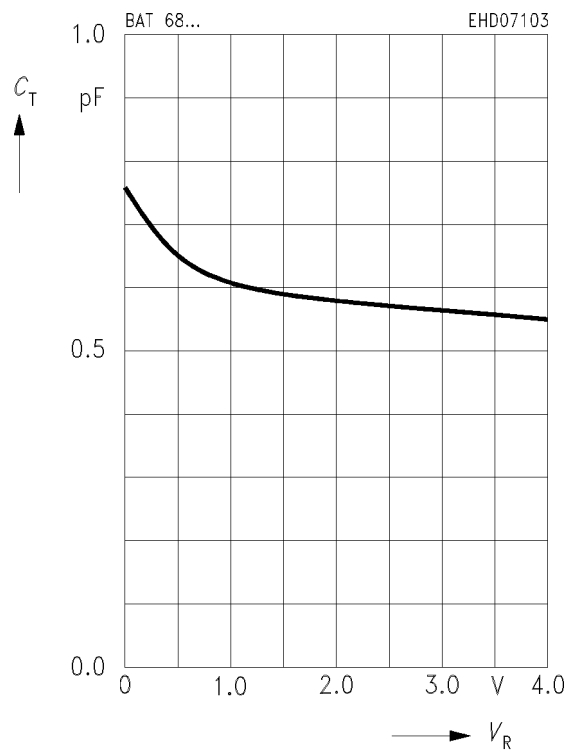
BAT 68



Reverse current $I_R = f(V_R)$



Diode capacitance $C_T = f(V_R)$
 $f = 1 \text{ MHz}$



Differential forward resistance $r_f = f(I_F)$
 $f = 10 \text{ kHz}$

