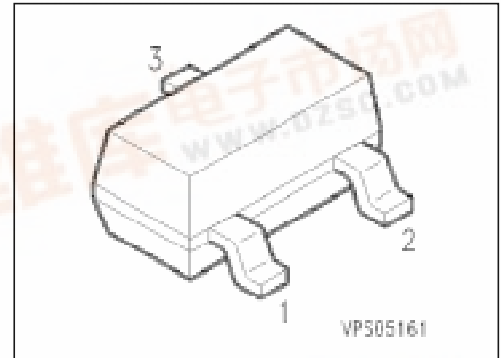


# SIEMENS

## Silicon Schottky Diodes

## BAT 68 ...

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

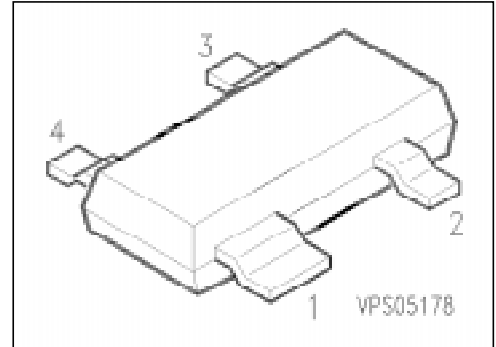


**ESD:** Electrostatic discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package <sup>1)</sup>
BAT 68	83	Q62702-A926	<p>EHA07002</p>	SOT-23
BAT 68-04	84	Q62702-A4	<p>EHA07005</p>	
BAT 68-05	85	Q62702-A15	<p>EHA07004</p>	
BAT 68-06	86	Q62702-A19	<p>EHA07006</p>	



- 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 <sup>1)</sup>
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, $T_s \leq 60\text{ °C}$	$P_{tot}$	150	mW
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	- 55 ... + 150	

### Thermal Resistance

Junction - ambient <sup>2)</sup>	$R_{th\ JA}$	$\leq 750$	K/W
Junction - soldering point	$R_{th\ JS}$	$\leq 590$	

<sup>1)</sup> For detailed information see chapter Package Outlines.

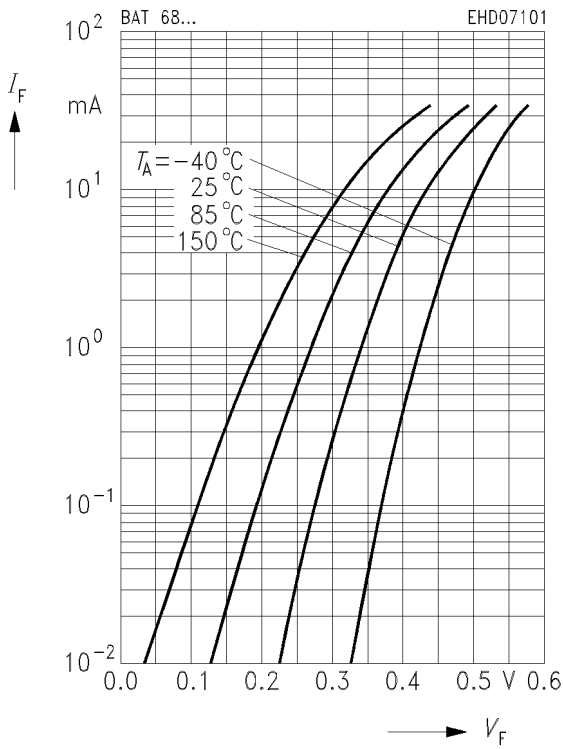
<sup>2)</sup> Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

**Electrical Characteristics per Diode**  
at  $T_A = 25\text{ °C}$ , 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 $V_R = 1\text{ V}$ $V_R = 1\text{ V}, T_A = 60\text{ °C}$	$I_R$	– –	– –	0.1 1.2	$\mu\text{A}$
Forward voltage <sup>1)</sup> $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$	$V_F$	– –	– –	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	$\Omega$

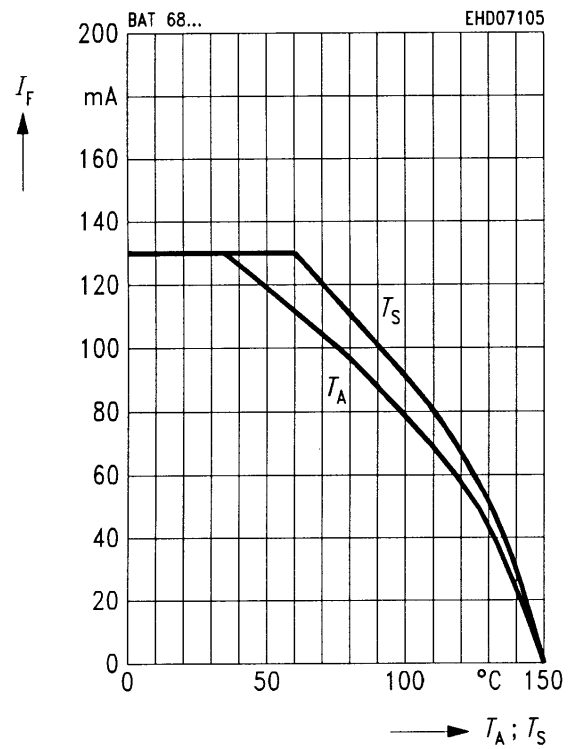
<sup>1)</sup> Forward voltage matching, types -04, -05, -06, -07  $I_F = 10\text{ mA}$ ,  $\Delta V_F = 20\text{ mV max.}$

**Forward current  $I_F = f(V_F)$**



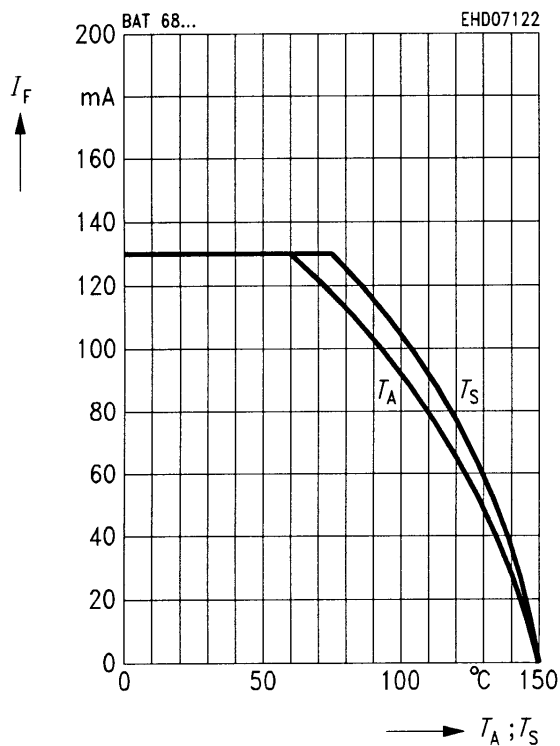
**Forward current  $I_F = f(T_S, T_A^*)$**

\*Package mounted on alumina  
BAT 68-04, -05, -06, -07

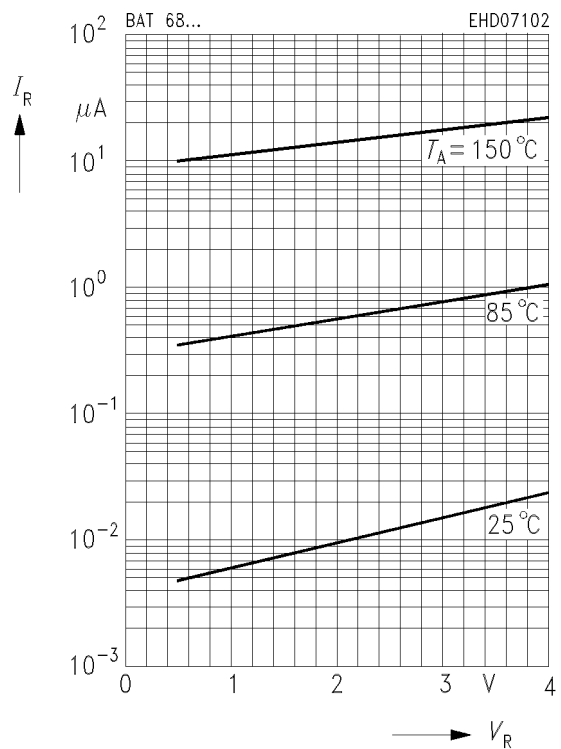


**Forward current  $I_F = f(T_S; T_A^*)$**

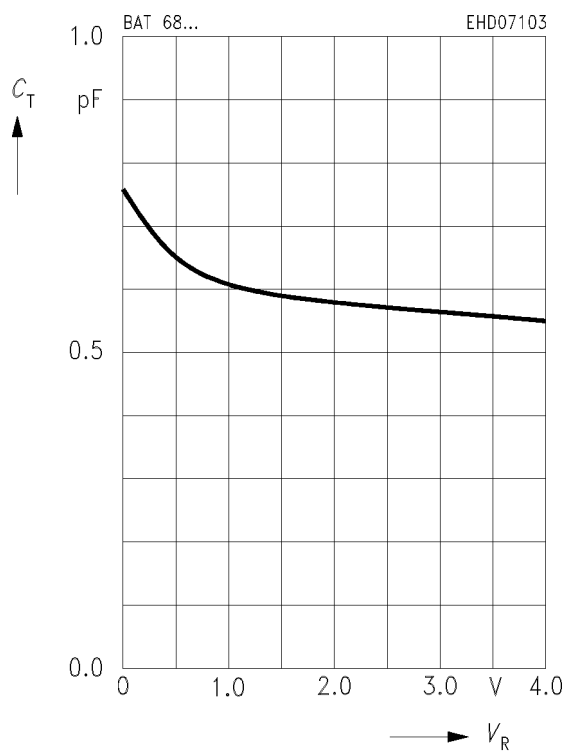
\*Package mounted on alumina  
BAT 68



**Reverse current  $I_R = f(V_R)$**



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



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

