

# Silicon Schottky Diode

## **BAT15-03W**

4V/100mA

# DATASHEET

OEM – Siemens

Source: Siemens Databook 1997

### Silicon Schottky Diode

- DBS mixer applications to 12 GHz
- Low noise figure
- Low barrier type



**ESD:** ElectroStatic Discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code	Pin Configuration		Package
BAT 15-03W	P/white	Q62702-A1104	1 = A	2 = C	SOD-323

#### Maximum Ratings

Parameter	Symbol	Values	Unit
Diode reverse voltage	$V_R$	4	V
Forward current	$I_F$	100	mA
Total power dissipation $T_S = 70^\circ\text{C}$	$P_{tot}$	100	mW
Operating temperature range	$T_{op}$	- 55 ... + 150	°C
Storage temperature	$T_{stg}$	- 55 ... + 150	

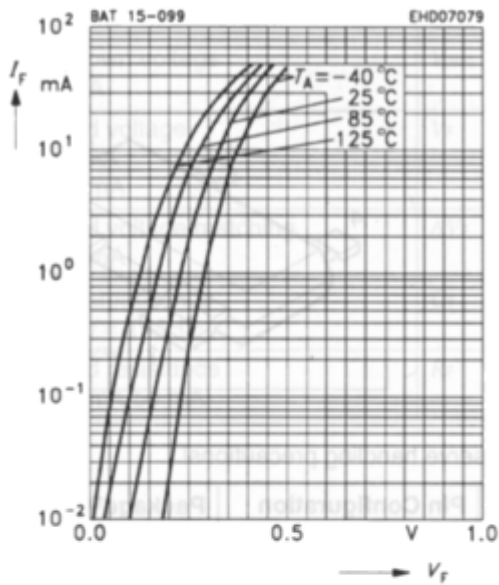
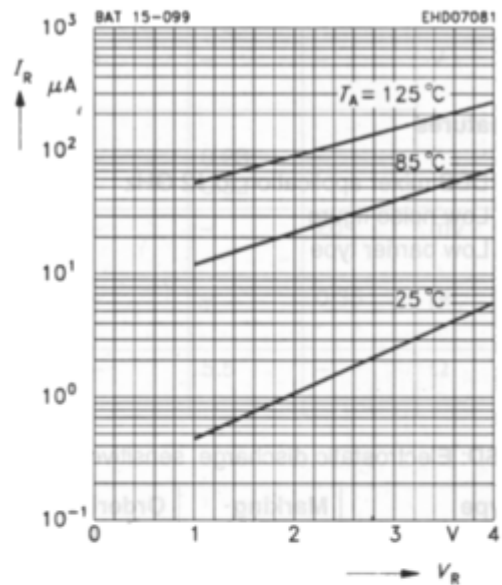
#### Thermal Resistance

Junction ambient <sup>1)</sup>	$R_{thJA}$	≤ 770	K/W
Junction - soldering point	$R_{thJS}$	≤ 690	

1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm<sup>2</sup> Cu

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
<b>DC characteristics</b>					
Breakdown voltage $I_{(BR)} = 5 \mu\text{A}$	$V_{(BR)}$	4	-	-	V
Forward voltage $I_F = 1 \text{ mA}$	$V_F$	-	0.23	0.32	
$I_F = 10 \text{ mA}$		-	0.32	0.41	
<b>AC characteristics</b>					
Diode capacitance $V_R = 0, f = 1 \text{ MHz}$	$C_T$	-	-	0.35	pF
Differential forward resistance $I_F 10\text{mA}/ 50 \text{ mA}$	$R_F$	-	5.5	-	$\Omega$

Forward Current  $I_F = f(V_F)$ Reverse current  $I_R = f(T_A)$ Diode capacitance  $C_T = f(V_R)$   
 $f = 1\text{MHz}$ 