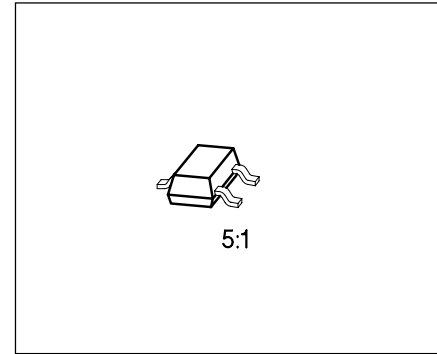


SIEMENS

Silicon Dual Schottky Diode

BAT 15-04

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



Type	Ordering Code (tape and reel)	Pin Configuration			Marking	Package
		1	2	3		
BAT 15-04	Q62702-A504	A	–	C	S8	SOT-23

Maximum Ratings

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	4	V
Forward current	I_F	110	mA
Total power dissipation $T_S \leq 55\text{ °C}$	P_{tot}	100	mW
Operating temperature range	T_{op}	– 55 ... + 150	°C
Storage temperature range	T_{stg}	– 55 ... + 150	°C

Thermal Resistance

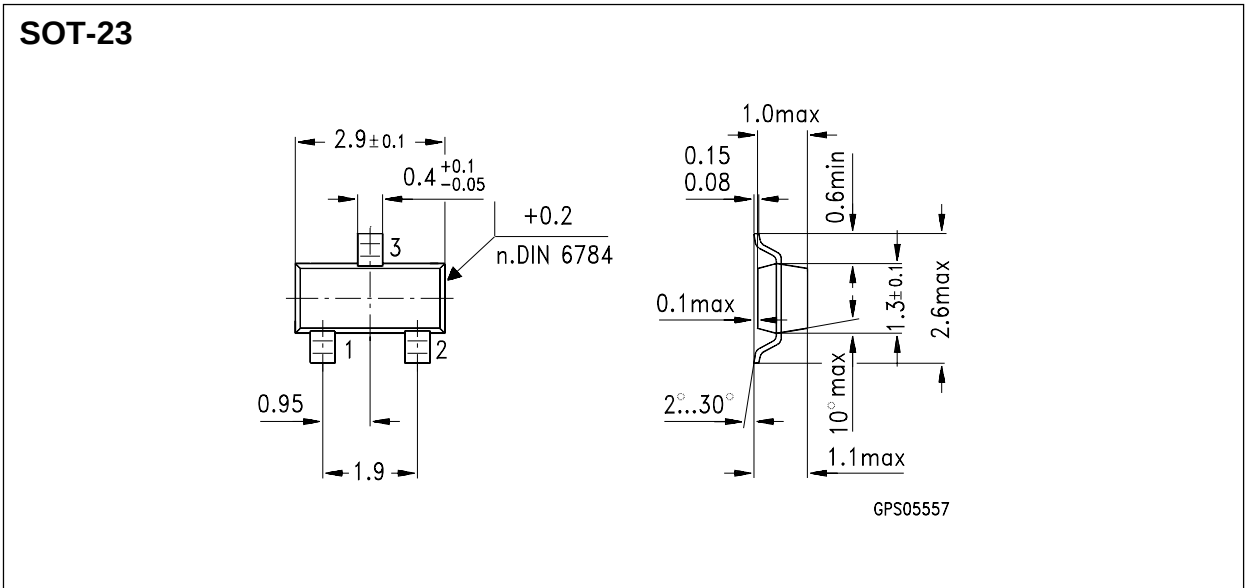
Junction-ambient ¹⁾	$R_{th JA}$	≤ 1090	K/W
Junction-soldering point	$R_{th JS}$	≤ 930	K/W

1) Package mounted on aluminum 15 mm x 16.7 mm x 0.7 mm.

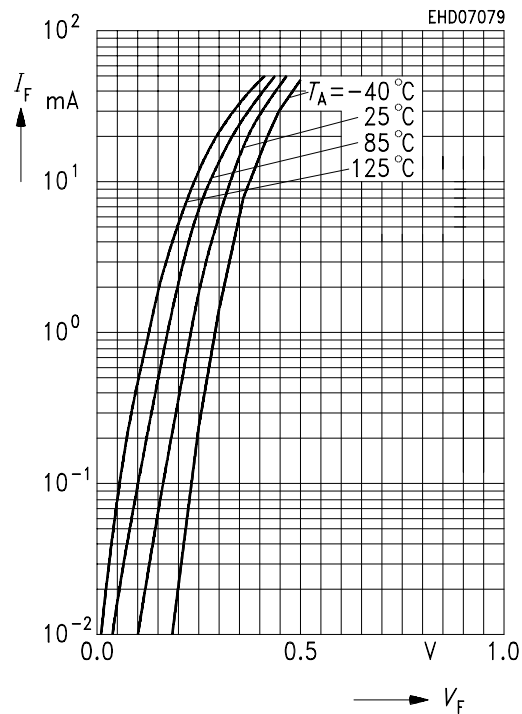
Electrical Characteristics
at $T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	
DC Characteristics					
Breakdown voltage $I_R = 5\text{ }\mu\text{A}$	$V_{(\text{BR})}$	4	—	—	V
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$	V_F	— —	0.23 0.32	— 4	V
Forward voltage matching $I_F = 10\text{ mA}$	ΔV_F	—	—	20	mV
Diode capacitance $V_R = 0\text{ V}$, $f = 1\text{ MHz}$	C_T	—	—	0.35	pF
Forward resistance $I_F = 10\text{ mA}$ / 50 mA	R_F	—	5.5	—	Ω

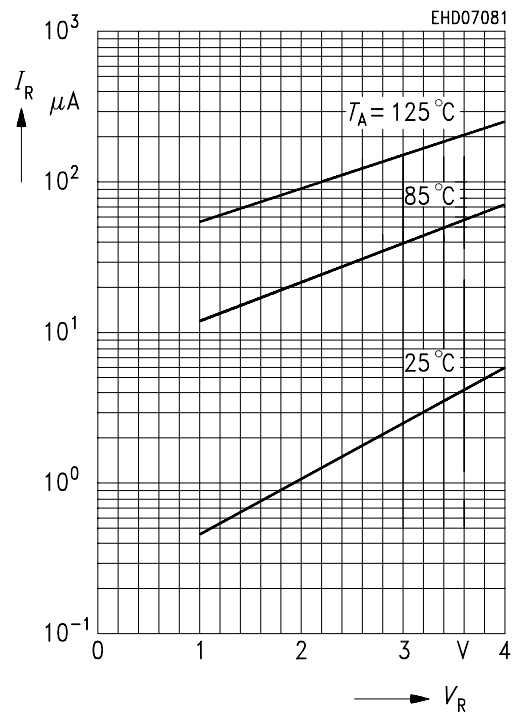
Package Outline



Forward current $I_F = f(V_F)$



Reverse current $I_R = f(V_R)$



Diode capacitance $C_T = f(V_R)$

$f = 1$ MHz

