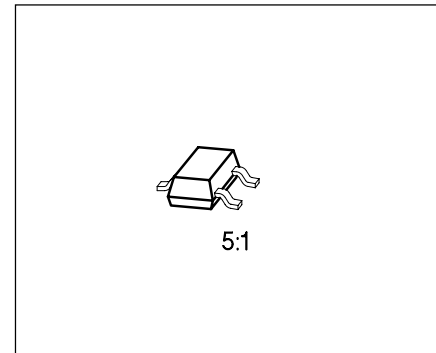


## Silicon Dual Schottky Diode

**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 <sup>1)</sup>	$R_{th\ JA}$	$\leq 1090$	K/W
Junction-soldering point	$R_{th\ JS}$	$\leq 930$	K/W

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

**Electrical Characteristics**

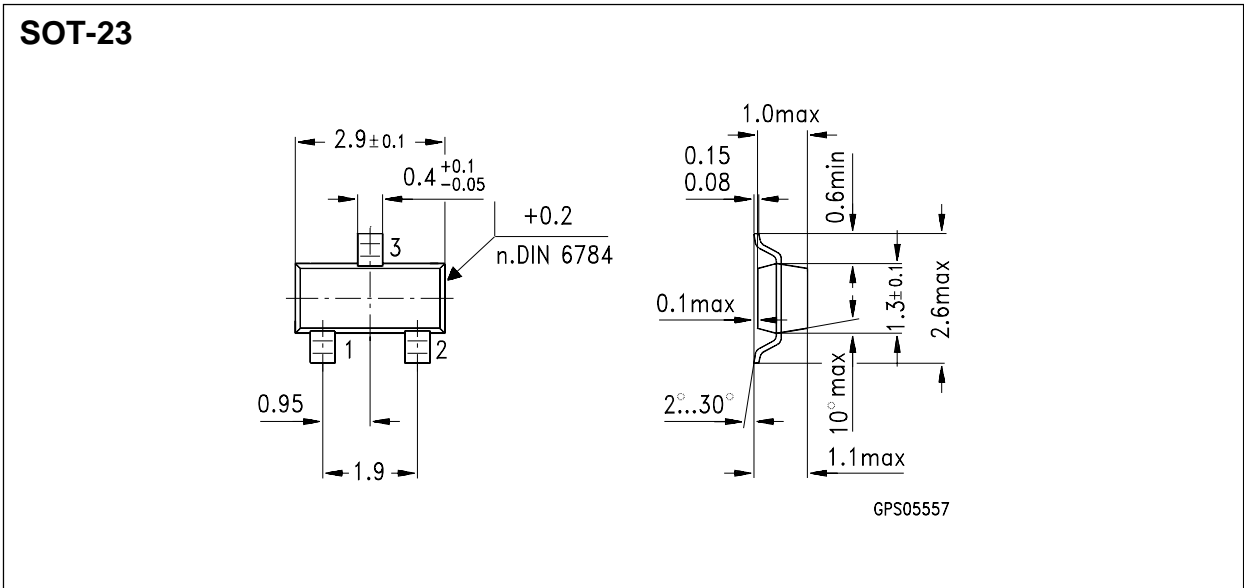
at  $T_A = 25\text{ }^\circ\text{C}$ , unless otherwise specified.

Parameter	Symbol	Value			Unit
		min.	typ.	max.	

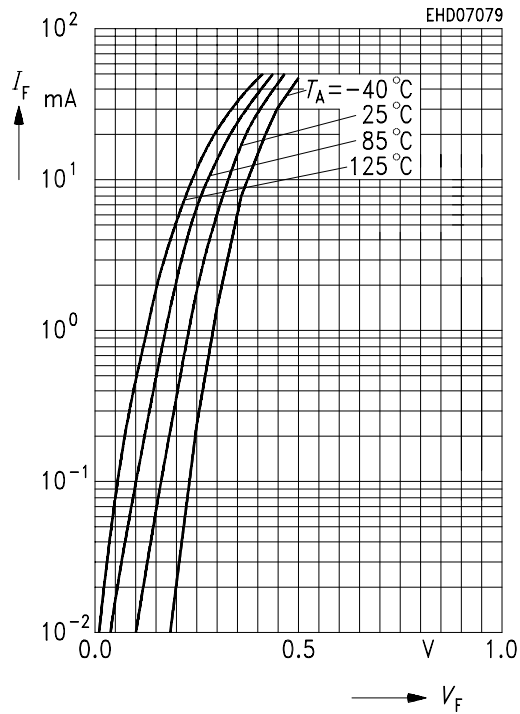
**DC Characteristics**

Breakdown voltage $I_R = 5\text{ }\mu\text{A}$	$V_{(BR)}$	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 $I_F = 10\text{ mA}$	$\Delta V_F$	–	–	20	mV
Diode capacitance $V_R = 0\text{ V}, f = 1\text{ MHz}$	$C_T$	–	–	0.35	pF
Forward resistance $I_F = 10\text{ mA} / 50\text{ mA}$	$R_F$	–	5.5	–	$\Omega$

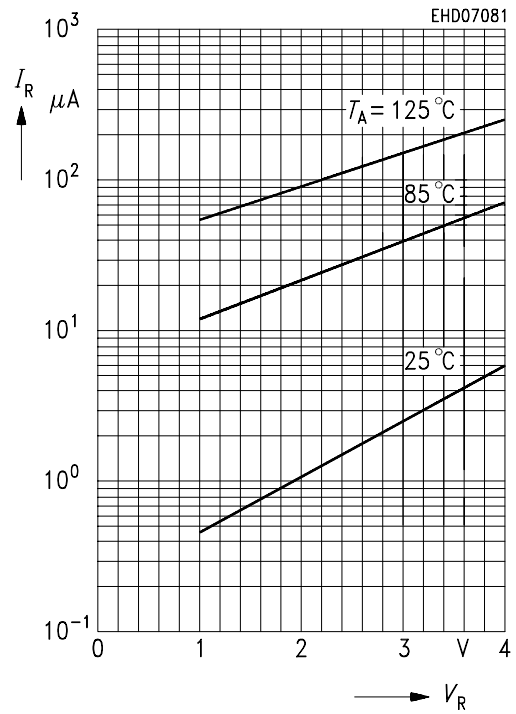
**Package Outline**



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



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



**Diode capacitance  $C_T = f(V_R)$**

$f = 1$  MHz

