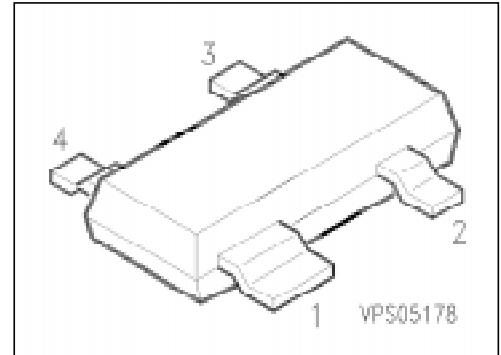


## Silicon Schottky Diode

**BAT 62**

- Low barrier diode for detectors up to GHz frequencies.



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

Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package <sup>1)</sup>
BAT 62	62	Q62702-A971		SOT-143

### Maximum Ratings per Diode

Parameter	Symbol	Values	Unit
Reverse voltage	$V_R$	40	V
Forward current	$I_F$	20	mA
Total power dissipation, $T_s \leq 85 \text{ }^\circ\text{C}$	$P_{tot}$	100	mW
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	- 55 ... + 150	

### Thermal Resistance

Junction - ambient <sup>2)</sup>	$R_{th JA}$	$\leq 810$	K/W
Junction - soldering point	$R_{th JS}$	$\leq 650$	

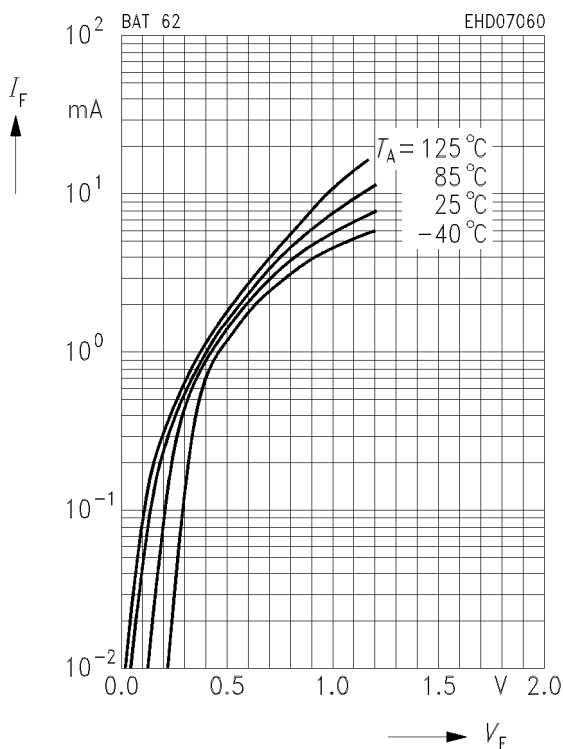
<sup>1)</sup> For detailed information see chapter Package Outlines.

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

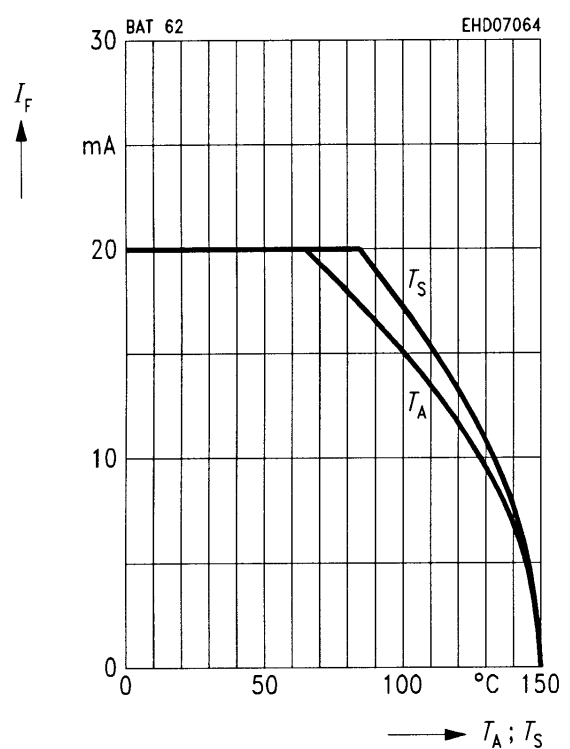
**Electrical Characteristics per Diode**  
at  $T_A = 25\text{ }^\circ\text{C}$ , unless otherwise specified.

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current $V_R = 40\text{ V}$	$I_R$	–	–	10	$\mu\text{A}$
Forward voltage $I_F = 2\text{ mA}$	$V_F$	–	0.58	1	V
Diode capacitance $V_R = 0, f = 1\text{ MHz}$	$C_T$	–	0.35	0.6	pF
Case capacitance	$C_C$	–	0.1	–	
Differential resistance $V_R = 0, f = 10\text{ kHz}$	$R_0$	–	225	–	$\text{k}\Omega$
Series inductance	$L_S$	–	2	–	nH

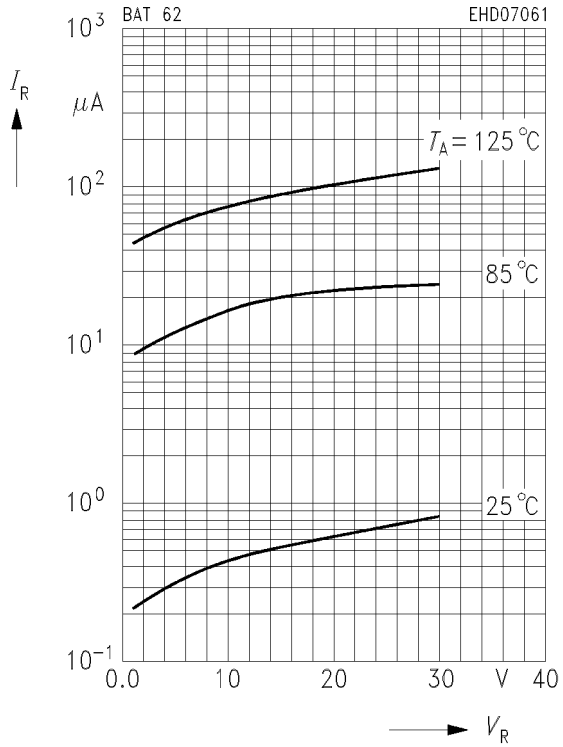
**Forward current  $I_F = f(V_F)$**



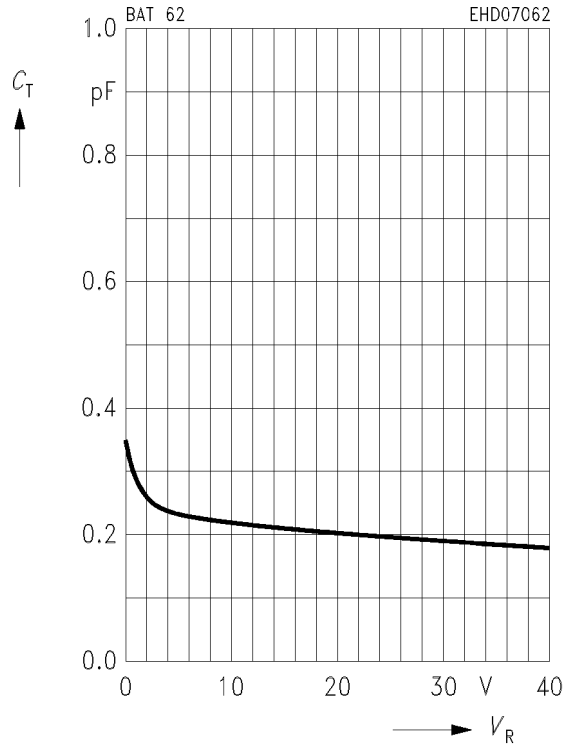
**Forward current  $I_F = f(T_S; T_A^*)$**   
\*Package mounted on alumina



**Reverse current  $I_R = f(V_R)$**   
 $f = 1 \text{ MHz}$



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



**Rectifier voltage  $V_o = f(V_i)$**   
 $f = 900 \text{ MHz}$

