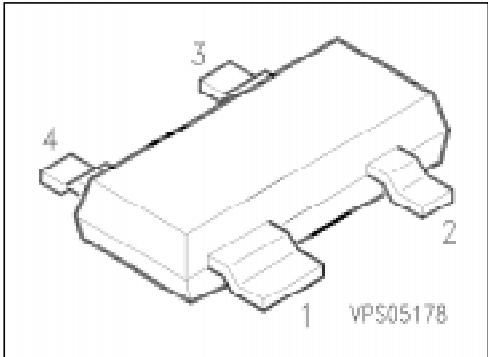


Silicon Schottky Diode

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 ¹⁾
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, $T_s \leq 85^\circ\text{C}$	P_{tot}	100	mW
Junction temperature	T_j	150	$^\circ\text{C}$
Storage temperature range	T_{stg}	- 55 ... + 150	

Thermal Resistance

Junction - ambient ²⁾	$R_{\text{th JA}}$	≤ 810	K/W
Junction - soldering point	$R_{\text{th JS}}$	≤ 650	

¹⁾ For detailed information see chapter Package Outlines.

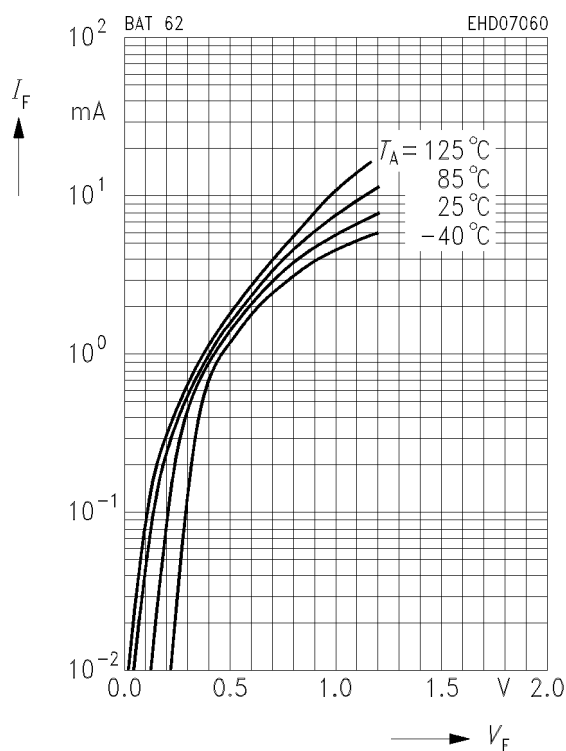
²⁾ Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

Electrical Characteristics per Diode

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

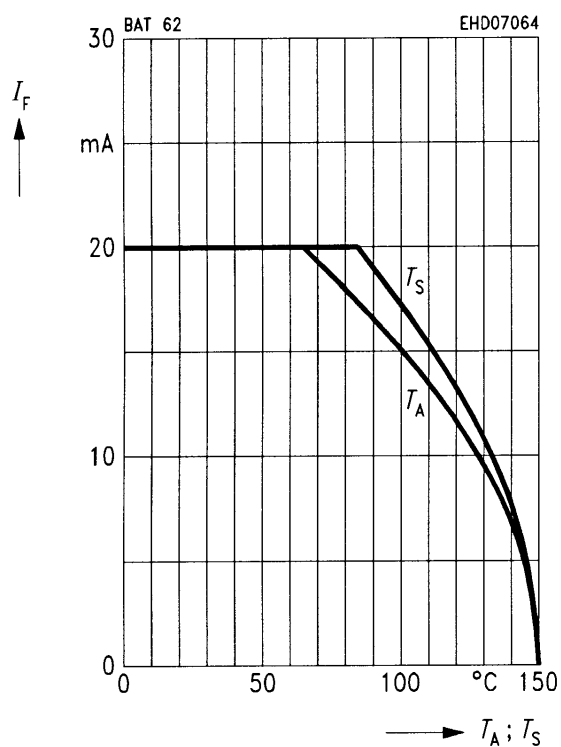
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current $V_R = 40\text{ V}$	I_R	—	—	10	μA
Forward voltage $I_F = 2\text{ mA}$	V_F	—	0.58	1	V
Diode capacitance $V_R = 0, f = 1\text{ MHz}$	C_T	—	0.35	0.6	pF
Case capacitance	C_C	—	0.1	—	
Differential resistance $V_R = 0, f = 10\text{ kHz}$	R_0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

Forward current $I_F = f(V_F)$

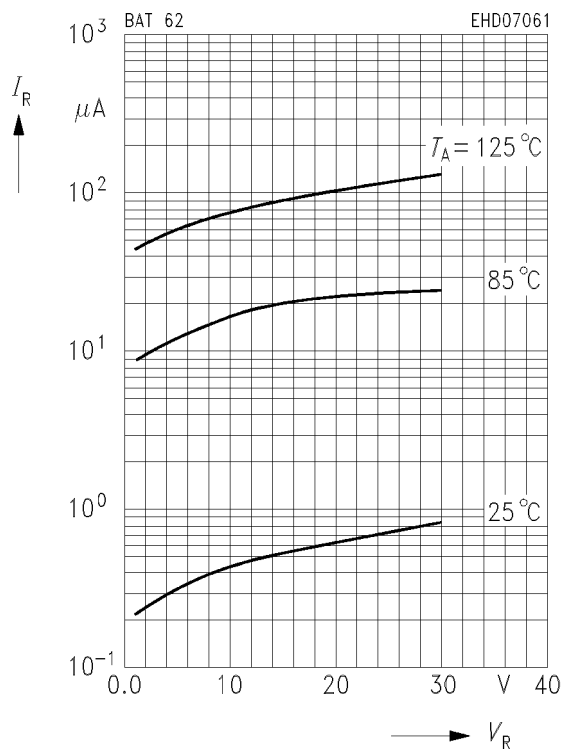


Forward current $I_F = f(T_S; T_A^*)$

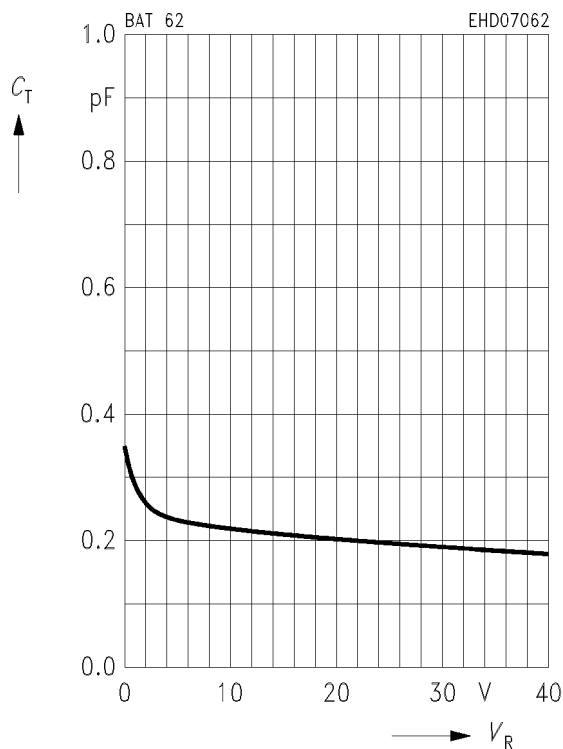
*Package mounted on alumina



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



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



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

