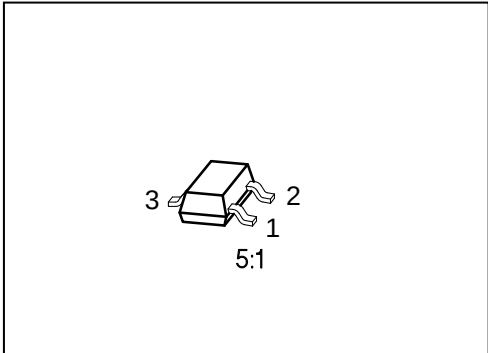


Silicon Schottky Diodes

BAS 70 ...

- General-purpose diodes for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing
- Available with CECC quality assessment

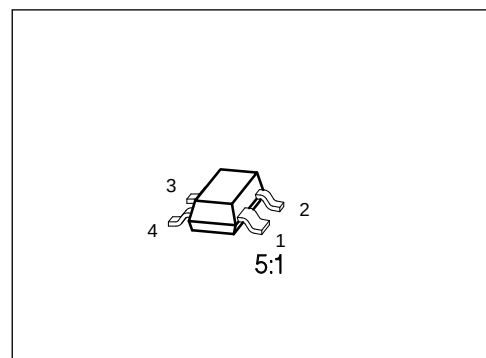


ESD: Electrostatic discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package ¹⁾
● BAS 70	73s	Q62702-A118		SOT-23
● BAS 70-04	74s	Q62702-A730		
● BAS 70-05	75s	Q62702-A711		
● BAS 70-06	76s	Q62702-A774		

¹⁾ For detailed information see chapter Package Outlines.

- General-purpose diodes for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing
- Available with CECC quality assessment



ESD: Electrostatic discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package ¹⁾
● BAS 70-07	77s	Q62702-A846		SOT-143

Maximum Ratings per Diode

Parameter	Symbol	Values	Unit
Reverse voltage	V_R	70	V
Forward current	I_F	70	mA
Surge forward current, $t \leq 10$ ms	I_{FSM}	100	
Total power dissipation BAS 70 $T_s \leq 66$ °C ²⁾ BAS 70-04 ... $T_s \leq 40$ °C ²⁾	P_{tot}	250	mW
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	– 55 ... + 150	
Storage temperature range	T_{stg}	– 55 ... + 150	

Thermal Resistance

Junction - ambient ³⁾ BAS 70 BAS 70-04 ...	$R_{th JA}$	≤ 405 ≤ 575	K/W
Junction - soldering point BAS 70 BAS 70-04 ...	$R_{th JS}$	≤ 335 ≤ 435	

¹⁾ For detailed information see chapter Package Outlines.

²⁾ Max. 450 mW per package.

³⁾ Package mounted on epoxy pcb 40 mm × 40 mm × 1.5 mm/6 cm² Cu.

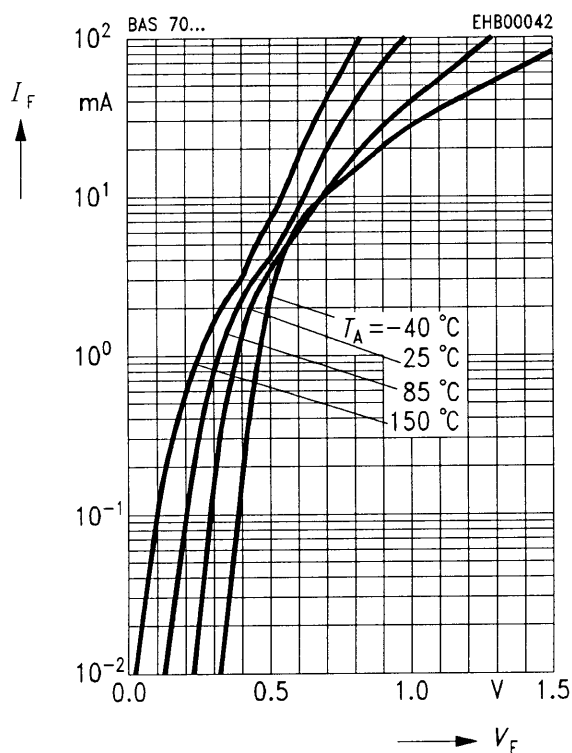
Electrical Characteristics per Diode

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

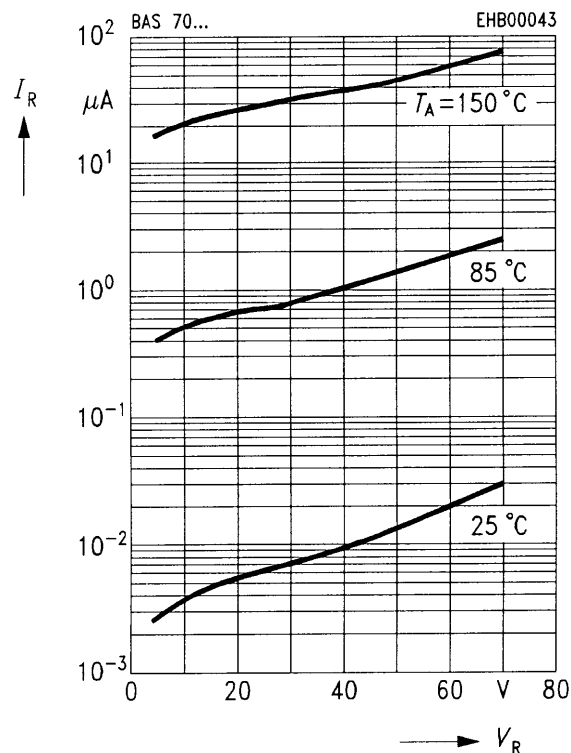
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_R = 10\text{ }\mu\text{A}$	$V_{(\text{BR})}$	70	—	—	V
Reverse current $V_R = 50\text{ V}$ $V_R = 70\text{ V}$	I_R	— —	— —	0.1 10	μA
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 15\text{ mA}$	V_F	— — —	380 690 780	410 750 1000	mV
Diode capacitance $V_R = 0, f = 1\text{ MHz}$	C_T	—	1.6	2	pF
Charge carrier life time $I_F = 25\text{ mA}$	τ	—	—	100	ps
Differential forward resistance $I_F = 10\text{ mA}, f = 10\text{ kHz}$	r_f	—	30	—	Ω

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

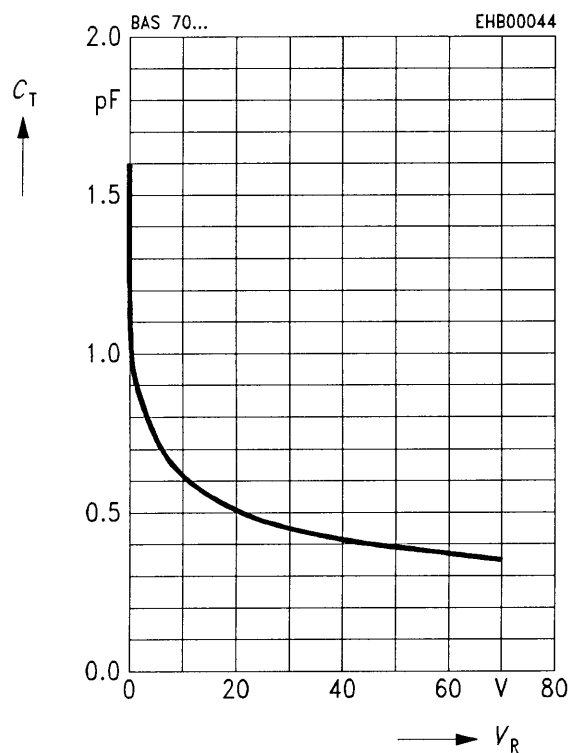
Forward current $I_F = f(V_F)$



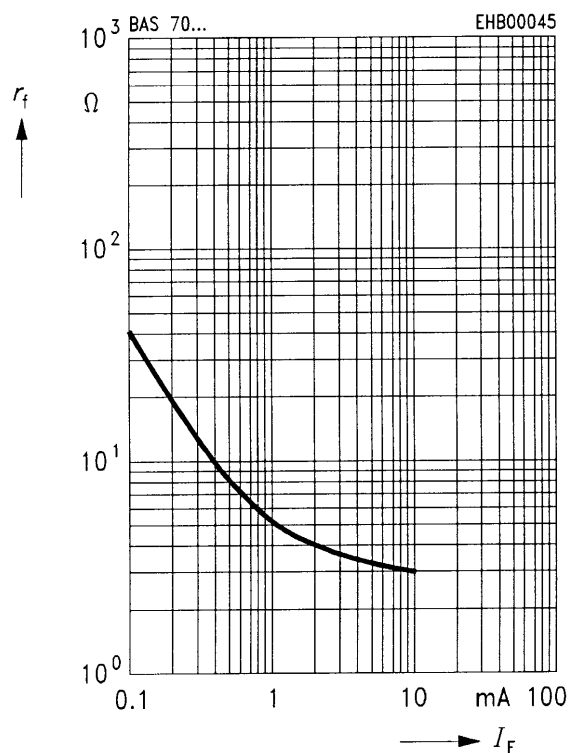
Reverse current $I_R = f(V_R)$



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



Differential forward resistance $r_f = f(I_F)$
 $f = 10\text{ kHz}$



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

* Package mounted on epoxy

