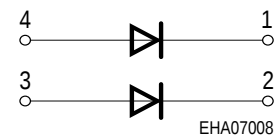
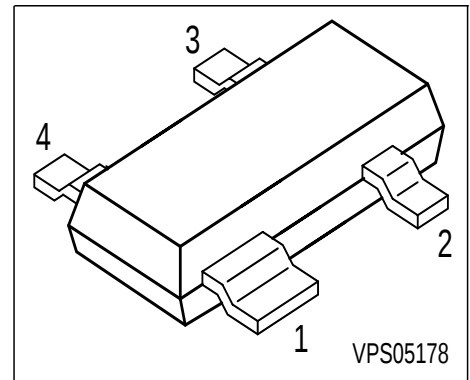


Silicon Schottky Diodes

- General-purpose diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing



Type	Marking	Pin Configuration				Package
BAS70-07	77s	1 = C1	2 = C2	3 = A2	4 = A1	SOT143

Maximum Ratings

Parameter	Symbol	Value	Unit
Diode 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, $T_S \leq 72$ °C	P_{tot}	250	mW
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	-55 ... 150	
Storage temperature	T_{stg}	-55 ... 150	

Maximum Ratings

Junction - soldering point ¹⁾	R_{thJS}	≤ 310	K/W
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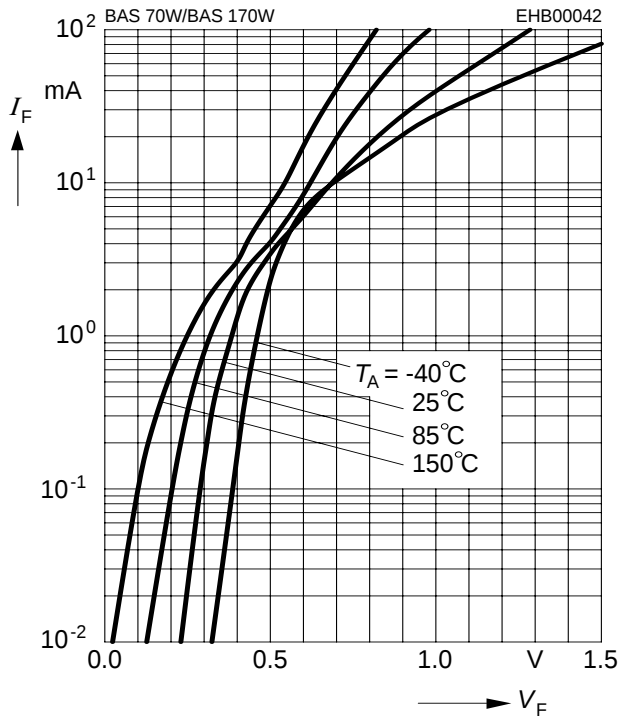
¹⁾For calculation of R_{thJA} please refer to Application Note Thermal Resistance

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC characteristics					
Breakdown voltage $I_{(BR)} = 10\ \mu\text{A}$	$V_{(BR)}$	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	- - -	375 705 880	410 750 1000	mV
AC characteristics					
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

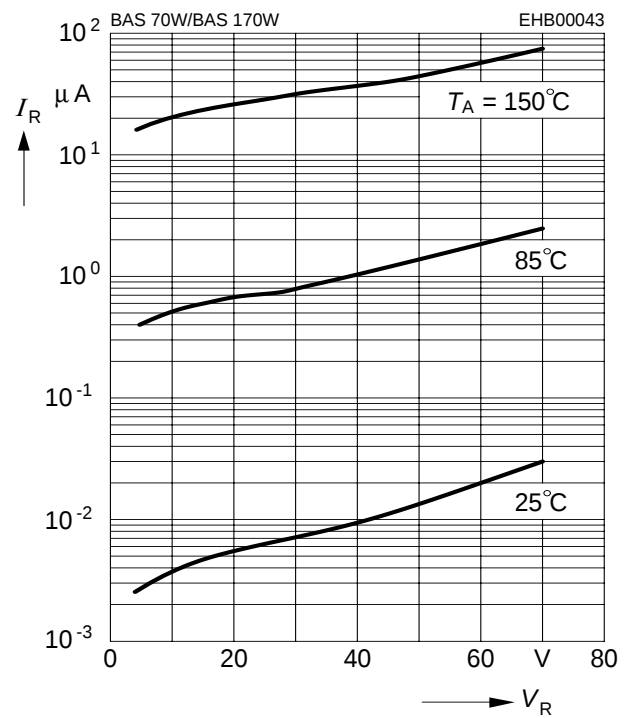
Forward current $I_F = f(V_F)$

$T_A = \text{Parameter}$



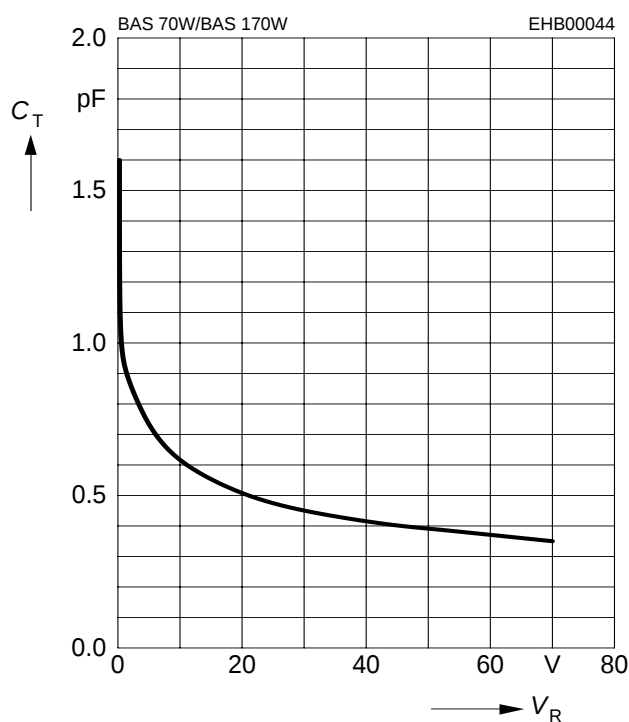
Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



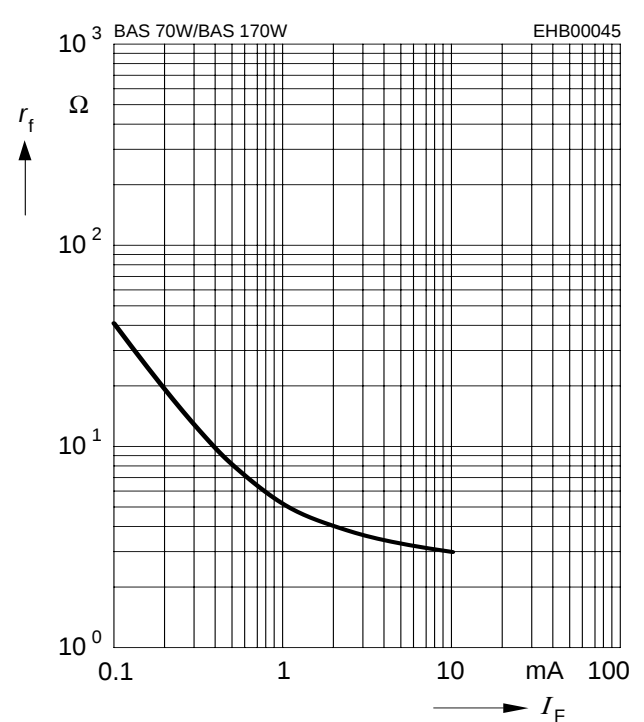
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



Differential forward resistance $r_f = f(I_F)$

$f = 10\text{ kHz}$



Forward current $I_F = f(T_S)$

